

INDEX OF AUTHORS' NAMES.

TRANSACTIONS AND ABSTRACTS.

1916.

(Marked T., and A., i and A., ii respectively.)

A.

Abakumovskaja, (*Mlle.*) L. N. See *S. S. Nametkin*.

Abderhalden, *Emil*, nitrogenous metabolism; replacement of food proteins by the mixture of amino-acids prepared from them; biological values of amino-acids prepared from tissues of the same kind, and of a different kind of animal; biological values of *l*-tryptophan, *l*-tyrosine, *l*-phenylalanine and other amino-acids; replacement of *l*-tyrosine and *l*-phenylalanine by the oxidation products, phenylpyruvic and *p*-hydroxyphenylpyruvic acids; influence of potassium nitrate, ammonium salts, urea, sodium acetate and single amino-acids on nitrogenous metabolism; the utilisation of the nitrogen of ammonia and of potassium nitrate, A., i, 580.

Abderhalden, *Emil*, and *Egon Eichwald*, preparation of optically active fats. III. Synthesis of the four possible optically active butyrins; rearrangement of the 3-carbon system into the optical antipodes, A., i, 8. synthesis of optically active diamino-glycerol [$\beta\gamma$ -diaminopropyl alcohol], A., i, 795.

Abderhalden, *Emil*, and *Gottfried Ewald*, are there substances, at present unknown, which are of importance for the maintenance of life? II., A., i, 582.

Abderhalden, *Emil*, and *Andor Fodor*, synthesis of polypeptides of high molecular weight from glycine and *l*-leucine, A., i, 375.

Abelin, *Isak*, ω -sulphonic acids of *p*-aminophenyl salicylate and their derivatives. II., A., i, 397.

Abelin, *Isak*, and *S. Lichtenstein-Rosenblat*, preparation of a bromo-derivative of *p*-aminophenyl salicylate. I., A., i, 645.

Abelin, *Isak*, and *Mendel Perelstein*, ω -sulphonic acids of *p*-aminophenyl salicylate and their derivatives. I., A., i, 396.

Abelin, *Isak*. See also *Mendel Perelstein*.

Abelin, *J.*, the carbohydrate metabolism of the surviving liver of the rabbit, A., i, 523.

Abelmann, *Arthur*. See *Victor Grignard*.

Acél, *Desider*, detection and estimation of nitrates and nitrites in meats, sausages, etc., A., ii, 537.

Acél, *Desider*. See also *L. von Liebermann*.

Acree, *Solomon Farley*, constituents of poison ivy (*Rhus toxicodendron*), A., i, 622.

Acree, *Solomon Farley*. See also *J. Chandler*, *W. F. Clarke*, *Herbert A. Lubs*, and *W. A. Taylor*.

Adam, *Hans*. See *Carl Dietrich Harries*.

Adams, *Elliot Quincy*, relations between the constants of dibasic acids and of amphoteric electrolytes, A., ii, 515.

Adams, *Elliot Quincy*. See also *Gilbert Newton Lewis*.

Adams, *Maxwell*, composition of wood turpentine, A., i, 53.

Adams, *Roger*, and *H. Gilman*, phenyl esters of oxalic acid, A., i, 140.

Adams, *Roger*. See also *Latham Clarke*, and *Charles Loring Jackson*.

Adanti, *G.*, indirect estimation of sugars, A., ii, 155.

volumetric estimation of mercury salts; evaluation of mercuric chloride compresses, A., ii, 579.

- Addicks, Lawrence**, the electrolysis of copper sulphate liquors, using carbon anodes, A., ii, 329.
- Addis, Thomas**, and **C. K. Watanabe**, rate of excretion of urea. I. Ambard and Weill's laws of the excretion of urea, A., i, 352. volume of urine in young healthy adults on a constant diet, A., i, 864. rate of excretion of urea. II. Rate of excretion of administered urea in young healthy adults on a constant diet, A., i, 864.
- Addy, Charles Wesley**, and **Alexander Killen Macbeth**, the reaction of the alkyl nitrites with pyridine and quinoline, T., 754; A., i, 668. trimethyl- and triethyl-sulphonium nitrites, T., 755; A., i, 627.
- Adler, I.**, some reactions of blood-vessels to certain chemicals. I., A., i, 615.
- Adolph, William H.**, estimation of fluorine, A., ii, 47.
- Adriani, W.**, action of xanthydrol with some amides and amines, A., i, 155.
- Adriani, W.**. See also *J. D. Filippo*.
- Afanasievski**. *I.*, oxidation of $\Delta\zeta$ -oleic and $\Delta\zeta$ -elaidic acids by alkaline permanganate solution and by Caro's reagent, A., i, 248.
- Aguilar, R. H.**. See *George W. Heise*.
- Aita, A.**, solubility of mineral phosphates, A., ii, 564. causes influencing the solubility in citric acid of difficultly soluble phosphates, A., ii, 565.
- Aitchison, Leslie**, the action of sulphuric acid on alloy steels, T., 288; A., ii, 255. corrosion of molybdenum salts, A., ii, 37. the influence of composition on the corrosion of steel, A., ii, 439. theory of the corrosion of steel, A., ii, 622.
- Aiyer, P. A. Subramania**. See *W. H. Harrison*.
- Aktien-Gesellschaft für Anilin-Fabrikation**, preparation of chloroanthraquinones, A., i, 154. preparation of dianthraquinone oxides, A., i, 154. preparation of halogen derivatives of glycineamide, A., i, 632. preparation of nitriles, A., i, 815.
- Albert, August**, cyanohydrins and amides, A., i, 821.
- Albertosi, Alfred**, law of thermal expansion of liquids below the normal boiling point, A., ii, 214.
- Albertosi, Alfred**, formula for the calculation of the heat of vaporisation of non-associated liquids, A., ii, 218. law of thermal expansion of liquids, A., ii, 414.
- Aldrich, Thomas Bailey**, trichloro-*tert*-butyl acetate (acetylchlorotone), A., i, 115. the total nitrogen and α -amino-nitrogen of pepsins of different strengths, A., i, 227.
- an apparatus for evaporating aqueous extracts by means of a current of air, A., ii, 26.
- Alemany, J.**. See *Julio de Guzmán Carrancio*.
- Alessandri, Luigi**. See *Angelo Angeli*.
- Algar, Joseph**, diketones derived from diacetylresorcinol dimethyl ether, A., i, 656.
- Algar, Joseph**. See also *Hugh Ryan*.
- Allen, C. H.**. See *Phœbus A. Levene*.
- Allen, E. R.**. See *B. S. Davison*.
- Allen, Eugene Thomas**, composition of bornite, A., ii, 391.
- Allen, Eugene Thomas**. See also *Eugen Posnjak*.
- Allen, H. Stanley**, the latent heat of fusion of a metal and the quantum theory, A., ii, 414.
- Almström, G. Karl**, phenylfumaric acid, A., i, 146. some derivatives of pyrrole. III., A., i, 568.
- Aloy, Jules**, and [Pierre] **Charles Rabaut**, saponification of benzoylated cyano-hydrins by acetic acid in presence of metallic salts, A., i, 263.
- Alsberg, Carl Lucas**, reduction of oxyhaemocyanin in the serum of *Limulus polyphemus*, L., A., i, 181.
- Alsberg, Carl Lucas**, and **Otis Fisher Black**, separation of autogenous and addel hydrocyanic acid from certain plant tissues and its disappearance during maceration, A., ii, 401.
- Alsberg, Carl Lucas**. See also *Arno Viehoever*.
- Alt, A. D.**. See *Edward Mallinckrodt, jun.*
- Alterthum, H.**. See *Wilhelm Seitz*.
- Alwood, W. B.**, and **J. R. Eoff, jun.**, occurrence of relatively large amounts of sucrose in a new seedling grape, A., i, 458.
- Amato, A.**, the lipoids of the blastomycetes, A., i, 236.
- Amberger, Conrad**, organosols of metals and metallic hydroxides of the platinum group. III., A., ii, 41. hydrosols of mercury and of its oxygen compounds, A., ii, 380.

- Ames, J. W.**, and *Charles J. Schollenberger*, comparison of methods for determining the lime requirement of soils, A., i, 459.
- Andersen, A. C.**, and *Regitze Roed-Müller*, proteins. III. Estimation of the monoamino-dicarboxylic acids, A., ii, 402.
- Andersen, Erik Buch**, application of the quantum theory to unimolecular reactions, A., ii, 21.
- Anderson, E.** See *R. J. Nestell*.
- Anderson, Ernest**, isomerism of the α - and β -forms of the sugars, A., i, 465.
- Anderson, Ernest**, and *H. L. Brown*, the velocity of saponification of fats and oils by potassium hydroxide in different solvents, A., ii, 235.
- Anderson, Edward X.**, electrical conductivity of certain salts in pyridine, A., ii, 74.
- Anderson, G.**, examination of methods for the detection of hydrocyanic acid, A., ii, 585.
- Anderson, John Spence**, an electromagnetic vacuum balance, A., ii, 78.
- Anderson, Leonard**. See *Julius Berend Cohen*.
- Anderson, R. J.**, utilisation of inositol in the dog, A., i, 688.
- aromatic constituents of urine. I. Non-phenolic volatile oils of cow's urine, A., i, 773.
- aromatic constituents of urine. II. Non-phenolic volatile oils of goat's urine, A., i, 774.
- aromatic constituents of urine. III. Non-phenolic volatile oils of horse's and human urine, A., i, 774.
- Anderson, R. J.**, and *Alfred W. Bosworth*, utilisation of inositol in the animal organism; effect of inositol on the metabolism of man, A., i, 688.
- Anderson, R. P.**, reagent for use in gas analysis. III. The specific absorption of alkaline pyrogallol in various pipettes, A., ii, 262.
- pipettes specially adapted for use with alkaline pyrogallol, A., ii, 262.
- Anderson, R. P.**, and *W. Biederman*, reagents for use in gas analysis. IV. Phosphorus in solution, A., ii, 262.
- Anderson, R. P.**, and *J. Riffe*, reagents for use in gas analysis. II. Chromous chloride, A., ii, 261.
- André, Gustave**, the displacement by water of nitrogenous and mineral substances contained in leaves, A., i, 238.
- displacement of potassium and phosphoric acid contained in certain rocks by some substances used as fertilisers, A., i, 304.
- André, Gustave**, the relations which exist between the presence of magnesium in the leaves and the function of assimilation, A., i, 455.
- Andrew, John Harold**, iron-carbon-silicon alloys, A., ii, 628.
- Andrich, K.**, and *Max Le Blanc*, the photo-bromination of toluene, A., ii, 68.
- Angeli, Angelo**, configuration of certain glyoximes, A., i, 655.
- constitution of azoxy-compounds, A., i, 679.
- Angeli, Angelo**, and *Luigi Alessandri*, pyrrole-black. II., A., i, 667.
- Anthes, Eug.** See *Hermann Staudinger*.
- Applebey, Malcolm Percival**, and *William Hughes*, the vapour pressures of some saturated solutions, A., ii, 81.
- Arbusov, Alexander E.**, and *A. A. Ivanov*, atomic refraction of phosphorus in certain organic phosphorus compounds, A., ii, 165.
- Arndt, Kurt**, electrolytic preparation of perborates, A., ii, 429.
- Arnold, W.**, Winkler's bromine-addition method [for the estimation of the iodine number of fats and oils], A., ii, 543.
- Aronshtam, I.** See *Nicolai N. Voroshcev*.
- Artini, Ettore**, crystalline form of α -trinitrotoluene, A., i, 23.
- Artis, Bonnibel**, nitrogen, chlorine, and sulphates in rain and snow, A., i, 304.
- Artis, Bonnibel**, and *Harold L. Maxwell*, barium in tobacco and other plants, A., i, 784.
- Artom, Camillo**. See *Ugo Lombroso*.
- Asahina, Yasuhiko**, anemonin, A., i, 401.
- Asahina, Yasuhiko**, and *M. Ishio*, evodin, a crystallised substance present in the fruit of *Evodia rutaecarpa*, A., i, 238.
- Asahina, Yasuhiko**, and *K. Kashiwaki*, composition of the fruit of *Evodia rutaecarpa*, A., i, 621.
- Asahina, Yasuhiko**, and *Toraji Shimizu*, saponin from the epicarp of *Sapindus mukurosi* Gaert., A., i, 734.
- Asahina, Yasuhiko**, and *G. Shirabe*, synthesis of a glucoside of paeonol, A., i, 412.
- Asayama, Chuai**, feeding experiments with kynurenic acid, A., i, 860.
- Aschan, [Adolf] Ossian**, determination of constitutions in the camphene group. VI. Isomerism of methyl-camphenilol and camphene hydrate, A., i, 51.

- Aschan, Ossian, R. Collander, and W. Forsman**, determination of constituents in the camphene group. VII. Camphenonic acid and its optically active components, A., i, 52.
- Ashchner, Paul W.** See *Albert A. Epstein*.
- Ashcroft, F. N.** natrolite from Kinbane, Co. Antrim, A., ii, 258.
- Ashcroft, F. N.** See also *George Frederick Herbert Smith*.
- Astruc, A.** See *F. Jadin*.
- Aten, Adriaan Hendrik Willem**, cathode-scattering in electrolysis, A., ii, 370.
- Aten, Adriaan Hendrik Willem**. See also *Andreas Smits*.
- Atkins, William Ringrose Gelston**, oxydases and their inhibitors in plant tissues. IV. The flowers of iris, A., i, 109.
- Atkins, William Ringrose Gelston**, and *G. O. Sherrard*, pigments of fruits in relation to some genetic experiments on *Capsicum annuum*, A., i, 109.
- Atkins, William Ringrose Gelston**. See also *Henry H. Dixon*, and (*Miss*) *Edith Gertrude Wilson*.
- Aubrey, A.** See *Emile Bourquelot*.
- Augspurger, Louis.** See *Otto Wallach*.
- Aust, E.** See *Julius von Braun*.
- Austin, J. Harold**, and *S. S. Leopold*, a comparison of the effects of dextrose and meat feeding on the non-protein nitrogen of the blood, and the duration of life in experimental renal insufficiency, A., i, 177.
- Austin, Wesley**, the influence of oxygen on some properties of pure iron, A., ii, 141.
- Autenrieth, Wilhelm**, and *Frieda Mink*, estimation of albumin in urine, A., ii, 163.
- Auwers, Karl [Friedrich] von**, relations between the constitution and the physical properties of isomeric and of homologous hydroaromatic compounds, A., i, 130.
- autoxidation accompanied by opening of a ring, A., i, 496.
- formation of flavonols from benzylidenecoumaranones, A., i, 496.
- spectrochemical notices, A., ii, 361.
- Auwers, Karl von**, and *E. Borsche*, formation of mono- and bis-azo-compounds from phenols and their ethers, A., i, 85.
- Auwers, Karl von**, and *E. Borsche* [with *A. Steinich*], *m*-5-xylenol, A., i, 34.
- Auwers, Karl von**, *R. Hinterseber*, and *Wilhelm Treppmann*, simple hydroaromatic hydrocarbons, alcohols, and ketones, A., i, 131.
- Averitt, S. D.**, separation and estimation of polysulphides and thiosulphate in lime-sulphur liquors, A., ii, 488.
- Averitt, S. D.** See also *Philip Lee Blumenthal*.
- Averkiev, N.** See *L. Pisarshevski*.

B.

- Bach, Alexis**, a new reaction of urine, A., i, 353.
- reactions of peroxydase purified by ultrafiltration, A., i, 682.
- Bacho, Ferruccio von**, the action of carbon dioxide at high temperatures on certain metals and metallic compounds, A., ii, 482.
- the quantitative analysis of antimony trisulphide and the products obtained from it by roasting, A., ii, 496.
- Bachstetz, Marcel.** See *Richard Wolfenstein*.
- Backer, Hilmar Johannes**, constitution of α -amino-acids; conductivity of iminodiazaoacetic acid and its monosodium salt, A., i, 21.
- molecular weight estimations of vegetable oils, A., ii, 118.
- relation between the most important physical and chemical constants of oils and fats, A., ii, 543.
- Badische Anilin & Soda Fabrik**, preparation of carbamide, A., i, 203.
- preparation of carbamide, and of ammonium carbonate for use in its preparation, A., i, 253.
- preparation of metallic derivatives of organic nitrogenous compounds, A., i, 313.
- preparation of *N*-substituted 4:4'-diaminodiarlylthioketones and their derivatives, A., i, 316.
- preparation of 4:4'-diaminodiarlylketones and their derivatives, A., i, 317.
- preparation of β -aminoanthraquinones, A., i, 318.
- preparation of β -arylaminoanthraquinones, A., i, 318.
- preparation of green wool dyes of the anthraquinone series, A., i, 335.
- preparation of aromatic amines, A., i, 716.
- preparation of aniline, other aromatic amines, or other substances involving catalytic hydrogenation, A., i, 716.
- Baehr, George.** See *Albert A. Epstein*.
- Baerwind, Ernst.** See *Franz Fischer*.

- Bailey, C. H.**, and **Morris J. Blish**, the identity of the proteins extracted from wheat-flour by the usual solvents, A., i, 195.
- Bailey, Cameron V.** See *Victor Caryl Myers*.
- Bailey, James R.**, and **L. A. Mikeska**, hydrazin-di-acids, A., i, 763.
- Bailey, R. K.** See *Waldemar Theodore Schaller*.
- Bailly, O.**, the mechanism of the action of tribasic sodium phosphate on the α -monochlorhydrin of glycerol, A., i, 118.
- Baker, J. C.** See *Henry Clapp Sherman*.
- Baker, Julian Levett**, and **Henry Francis Everard Hulton**, estimation of pentose or pentosans by means of Fehling's solution, A., ii, 651.
- Baker, Richard Thomas**, and **Henry George Smith**, *Eucalyptus australiana*, sp. nov. ("narrow-leaved peppermint") and its essential oil, A., i, 566.
- Baker, Willis**. See *A. O. Gettler*.
- Bakker, Gerrit**, structure of the capillary layer. II., A., ii, 553.
- Bakunin, Marussia**, colloidal solutions and organic syntheses, A., ii, 421.
- Bakunin, Marussia**, and **G. Fisceman**, mechanism of Perkin's reaction, A., i, 262.
- Bakunin, Marussia**, and **F. Giordani**, photochemical reactions of phenyl-nitroindones. V. Transformation products of phenylnitroindone, A., i, 604.
- Balbiano, Luigi**, graphitic acid, A., ii, 31.
- Balcar, J. O.**, physiological action of glucal, A., i, 697.
- Baldoni, Alessandro**, significance of the strophanthin reaction which is obtained by the action of sulphuric acid on strophanthus seeds, A., ii, 162.
- Ball, Nigel G.**, action of pectase, A., i, 91.
- Baly, Edward Charles Cyril**, [Baly's theory of chemical reaction and reactivity], A., ii, 240.
- Baly, Edward Charles Cyril**, and **Charles Scott Garrett**, the ultra-violet absorption system of sulphur dioxide, A., ii, 363.
- Baly, Edward Charles Cyril**, and **Frederick Gerald Tryhorn**, light absorption and fluorescence. IV. Change in absorption with concentration, A., ii, 278.
- Bamberger, Eugen**, metaquinonoids, A., i, 804.
- Bancroft, Wilder Dwight**, electromotive forces, A., ii, 122.
- the theory of emulsification, A., ii, 130.
- depolarisation by electrical waves, A., ii, 407.
- over-voltage and monatomic hydrogen, A., ii, 411.
- Bang, Ivar**, the residual nitrogen of the blood. I., II., III., IV. and V., A., i, 178, 179.
- the distribution of the residual nitrogen between blood corpuscles and plasma, A., i, 578.
- the resorption and assimilation of proteins and amino-acids, A., i, 579.
- estimation of amino-acids in the urine, A., ii, 119.
- Bang, Ivar**, and **E. Laurin**, the micro-method of estimation of the sugar of the blood, A., ii, 454.
- Bannowitz, Erich**, the thermal conductivity of neon, A., ii, 79.
- Barab, Jacob**. See *Marks Neidle*.
- Baragiola, W. I.**, preparation of pure uranium and other metals, A., ii, 390.
- Baragiola, W. I.**, and **Ch. Godet**, untrustworthiness of certain methods for determining the forms of combination of organic acids in wine, A., ii, 543.
- Baragiola, W. I.**, and **O. Schuppli**, wine containing free sulphuric acid, A., i, 876.
- states of combination of sulphur in wine and their estimation, A., ii, 488.
- Baragiola, W. I.** See also *Hans Kreis*.
- Barbieri, Giuseppe A.**, new complex compounds of tervalent vanadium, A., i, 595.
- compounds of quinquevalent molybdenum, A., i, 627.
- internal salts of sexavalent osmium and of cobalt and nickel, with salicylic acid, A., i, 727.
- action of oxidising agents on cerous salts, A., ii, 199.
- Barbour, Henry G.**, the action of morphine and scopolamine on the intact uterus, A., i, 188.
- mercuric chloride poisoning in animals treated unsuccessfully by Hall's antidote, A., i, 193.
- Barbour, Henry G.**, and **Nat H. Copenhafer**, the response of the surviving uterus to morphine and scopolamine, A., i, 188.
- Barbour, Henry G.**, and **Edward M. Frankel**, the action of phenylethylamine on the heart, A., i, 187.

- Barbour, Henry G.**, and **Simon B. Kleiner**, the action of caffeine and adrenaline on the vagus nerve, A., i, 187.
- Barbour, Henry G.**, and **Alexander L. Prince**, the influence of adrenaline on the coronary circulation of the monkey, A., i, 187.
- Bardach, Friedrich**. See *Hugo Ditz*.
- Bargellini, Guido**, derivatives of 1:2:3:4-tetrahydroxybenzene, A., i, 489.
- Barger, George**, and **Henry Drysdale Dakin**, some experiments on glyoxaline derivatives, A., i, 868.
- Barker, H. H.**, and **Herman Schlundt**, experiments on the separation of vanadium from crude sodium uranate, A., ii, 189.
- Barkla, Charles Glover**, and **Janette G. Dunlop**, the scattering of X-rays and atomic structure, A., ii, 282.
- Barladean, A. G.**, purification and physiological action of animal charcoal, A., ii, 49.
- Barlow, William**, crystallographic relations of allied substances traced by means of the law of valency-volumes, A., ii, 228.
- Barnebey, O. L.**, differential iodometry. I. Estimation of periodates, iodates, bromates, and chlorates in the presence of each other, A., ii, 261.
simple bath used for the solution of samples in an oxygen-free atmosphere, A., ii, 272.
- Barratt, John Oglethorpe Wakelin**, thrombin and calcium chloride in relation to coagulation, A., i, 229.
- Bartell, F. E.**, and **Carl D. Hocker**, relation of osmosis of solutions of electrolytes to membrane potentials: theoretical, A., ii, 377.
osmosis of some solutions of electrolytes with porcelain membranes, and the relation of osmosis to membrane potential, A., ii, 378.
- Baskov, A.**, diagram of state of the system formed by sodium and potassium acetates, A., i, 7.
- Bate, Stanley Charles**. See *Alexander McKenzie*.
- Bateman, W. G.**, digestibility and utilisation of the proteins of the egg, A., i, 688.
- Bateman, W. G.**, and **D. B. Conrad**, some salts of the halogenoacetic acids, II., A., i, 8.
- Bates, Joseph Sumner**. See *Treat Baldwin Johnson*.
- Batuecas, T.** See *Julio de Guzmán Carrancio*.
- Bau, Arminius**, yeast carboxylase: its permanence in a dry state as compared with the other enzymes of yeast, A., i, 455.
- Baudisch, Oskar**, nitrosoarylhydroxylamines. I. The influence of nuclear substitution on groups which give rise to internally complex salts, A., i, 386.
nitrate and nitrite assimilation. VIII. Cholera, I., A., i, 699.
nitrate and nitrite assimilation. IX. and XI. A., i, 700, 702.
- Baudisch, Oskar**, and **Rose Fürst**, *m*-nitrosoanisole, A., i, 34.
- Baudisch, Oskar**, **H. Gurewitsch**, and **S. Rothschild**, nitrosoarylhydroxylamines. II. Internally complex metallic salts of *o*-nitrosohydroxylaminophenyl 4-toluenesulphonate, A., i, 387.
- Baudisch, Oskar**, and **F. Jenner**, preparation of free hydroxylamine from hydroxylamino sulphate, A., ii, 527.
- Baudisch, Oskar**, and **Gabriel Klinger**, nitrate and nitrite assimilation. X., A., i, 701.
- Baudisch, Oskar**, **A. E. Pistor**, and **B. Silberblatt**, nitrosoarylhydroxylamines. III. Internally complex metallic salts, A., i, 388.
- Baudisch, Oskar**, and **H. Rom**, nitrosoarylhydroxylamines. IV. Internally complex metallic salts, A., i, 389.
- Baudisch, Oskar**, and **S. Rothschild**, *o*-nitrosophenol. II., A., i, 33.
- Bauer, Constanze**. See *Otto Fischer*.
- Bauer, Hugo**, *m*-aminophenolarsinic acid and its reduction products, A., i, 93.
- Bauer, O.**, and **O. Vogel**, aluminium-zinc alloys, A., ii, 435.
- Baumann, Emil J.** See *Frank Pell Underhill*.
- Baumann, K.**, and **J. Grossfeld**, weighing boats for Kjeldahl estimations, A., ii, 642.
- Baumann, Louis**, and **Harry M. Hines**, estimation of creatine in muscle. II., A., ii, 358.
- Baumann, Louis**, **Harry M. Hines**, and **J. Marker**, origin and estimation of creatine in muscle, A., i, 351.
- Baumann, Louis**, and **Thorsten Ingvaldsen**, estimation of creatine in muscle. III., A., ii, 503.
- Baur, Emil**, and **R. Orthner**, dynamics of scission of carbon dioxide from organic compounds, A., ii, 232.
- Baur, Emil**, **Konrad Sichling**, and **E. Schenker**, the problem of the diamond, A., ii, 247.

- Baxter, Gregory Paul**, and **Merritt Roy Grose**, a revision of the atomic weight of zinc; the electrolytic determination of zinc in zinc bromide, A., ii, 327.
- Baxter, Gregory Paul**, **Merritt Roy Grose**, and **Miner Louis Hartmann**, a revision of the atomic weight of cadmium; the electrolytic determination of cadmium in cadmium bromide, A., ii, 327.
- Baxter, Gregory Paul**, and **Charles Francis Hawkins**, densities and cubical coefficients of expansion of certain substances: As_2O_3 , PbCl_2 , PbBr_2 , PrCl_2 , A., ii, 221.
- Baxter, Gregory Paul**, and **Howard W. Starkweather**, efficiency of calcium chloride, sodium hydroxide, and potassium hydroxide as drying agents, A., ii, 637.
- Baxter, Gregory Paul**, and **Curtis Clayton Wallace**, changes in volume on solution in water of the halogen salts of the alkali metals. II., A., ii, 219.
- densities and cubical coefficients of expansion of the halogen salts of sodium, potassium, rubidium and caesium, A., ii, 220.
- Baxter, Gregory Paul**, **William Henry Whitecomb**, **Olus Jesse Stewart**, and **Harold Canning Chapin**, revision of the atomic weight of neodymium. II., A., ii, 325.
- Baxter, Robert Reginald**, and **Frederick Daniel Chattaway**, N-halogen derivatives of the p-halogen-substituted benzene-sulphonamides, A., i, 136.
- Bayliss, William Maddock**, the nature of enzyme action. IV. The action of insoluble enzymes, A., i, 174.
- Bazzoni, Charles Blizzard**. See **Joseph Samuel Hepburn**.
- Beal, George Denton**, and **St. Elmo Brady**, the hydrochlorite method for the estimation of alkaloids, A., ii, 356.
- Beans, Hal Truman**, and **Herbert E. Eastlack**, the electrical synthesis of colloids, A., ii, 89.
- Becarelli, R.** See **Luigi Marino**.
- Becchini, G.** See **G. Quagliariello**.
- Becciolini, Amos**. See **Mario Betti**.
- Beck, Erich (Ritter) von**. See **Hans Meyer**.
- Beck, R. Ph.** See **Andreas Smits**.
- Becker, J.** See **Hermann Staudinger**.
- Beckurts, Heinrich**, and **Georg Frerichs**, arylamides of thiocyanooacetic acid and aryl- ψ -thiohydantoin, A., i, 744.
- Beer, Th.** See **J. V. Dubsky**.
- Begemann, O.**, vegetable oxidation ferments, A., i, 194.
- Beiggs, Sydney Adams**. See **Charles Loring Jackson**.
- Behrend, [Anton Friedrich] Robert**, the configuration of mucouic acid; synthesis of mucic acid, A., i, 629.
- Behrend, Robert**, and **Rudolf Zieger**, oxidation of uric acid in alkaline solution. III., A., i, 164.
- Behrman, A. S.**, rapid method for the analysis of limestone for agricultural purposes, A., ii, 269.
- Bekier, E.**, manganese-bismuth alloys, A., ii, 36.
- Belasio, R.** See **G. Bosco**.
- Bell, Norman Murray**, the anodic solution of lead, A., ii, 76.
- Belle, E.** See **Victor Grignard**.
- Benedicks, Carl**, electrical resistance of some rare metals; thermo-electric power and rectifying action of germanium, A., ii, 170.
- new thermoelectric method for the study of allotropy of iron or other metals, A., ii, 172.
- Bennett, Alexander Hutcheon**, estimation of potassium in presence of other substances, A., ii, 448.
- Bennett, Charles W.**, and **J. G. Thompson**, over-voltage, A., ii, 286.
- Benrath, Alfred**, thallic-thallous compounds, A., ii, 329.
- Bente, V. Th.** See **Stefan Minovici**.
- Berczeller, L.**, reaction between iodic and sulphurous acids under the influence of catalysts of biological importance, A., ii, 478.
- Berg, J. C. van den**. See **Jacob Böeseken**.
- Bergeim, Olaf**. See **John O. Halverson**.
- Bergell, Peter**, compounds of amino-acids and ammonia. VIII., A., i, 713.
- Bergmann, Max**. See **Emil Fischer**.
- Berkeley, (the Earl of)**, a new form of distilling flask, together with a note on benzyl benzoate, T., 520; A., ii, 388.
- Berkeley, (the Earl of)**, and **Ernald George Justinian Hartley**, further determinations of direct osmotic pressures, A., ii, 518.
- Berman, Harry C.** See **Francis C. Frary**.
- Berner, H.** See **Josef Tambor**.
- Berry, Elmer**, the relationship between the content of the perspiration in chlorine and nitrogen and the diet, A., i, 185.
- Bertalan, Joseph von**, estimation of hydrogen peroxide, A., ii, 393.
- Berthold, Hans**. See **Otto Wallach**.
- Bertiaux, L.**, apparatus for the production of gases, A., ii, 26.

- Berti-Ceroni, G. B.** See *Gino Scagliarini*.
- Bertram, S. H.** See *Jacob Böeseken*.
- Besson, A. A.**, an extraction apparatus, A., ii, 26.
potassium metabisulphite, A., ii, 197.
- Betti, Mario**, chemical constitution and rotatory power. IV. Substituted cinnamic compounds, A., ii, 279.
- Betti, Mario**, and *Amos Becciolini*, configuration of the two oximes of phenyl α -naphthyl ketone, A., i, 49.
- Betti, Mario**, and *G. C. Conestabile*, chemical constitution and rotatory power. III. Influence of the chemical function of the substituent groups, A., ii, 279.
- Betti, Mario**, and *Remo Pacini*, isomeric phenylmethylisoaxazolecarboxylic acids, A., i, 222.
- Beutell, Albert**, synthesis of nickel arsenides, A., ii, 188.
- Beutell, Albert**, and *Fr. Lorenz*, synthesis of smaltite and löllingite, A., ii, 142.
- Beutner, Reinhard**, the true nature of the supposed adsorption potential, A., ii, 409.
- Bevan, Edward John.** See *Charles Frederick Cross*.
- Beyerinck, Martinus Willem**, presence of urease in higher plants, A., i, 536.
- Beyerinck, Martinus Willem**, and *T. Polpmers*, the formation of pyruvic acid from malic acid by micro-organisms, A., i, 306.
- Biazzo, R.** See *E. de Conno*.
- Bichowsky, F.** *Russell von*, and *H. Storch*, an improved form of gas-washing bottle, A., ii, 96.
- Biddle, Henry Chalmers**, the rates of conversion of the stereoisomeric cinchona alkaloids into their toxines, A., i, 417.
- Biederman, W.** See *R. P. Anderson*.
- Biehler, Ferd.** See *Max Busch* and *Carl Paal*.
- Biehringer, Joachim**, and *Wilhelm Bornsum*, tautomerism of nitrosulphuric (nitrosulphonic) acid, A., ii, 560.
- Biggs, H. F.**, the decrease in the paramagnetism of palladium caused by absorbed hydrogen, A., ii, 412.
- Bilham, E. G.**, a comparison of the arc and spark spectra of nickel produced under pressure, A., ii, 167.
- Bilheimer, (Mlle.) P. J.** See *Jacob Böeseken*.
- Biltz, Heinrich**, and *Toni Hamburger*, halogenated barbituric acids, A., i, 505.
dichlorohydurilic acids, A., i, 506.
- Biltz, Heinrich**, *Myron Heyn*, and *Toni Hamburger*, new derivatives of hyduriilic acid, A., i, 507.
- Bincer, Hans.** See *Fritz Ullmann*.
- Bingham, Eugene C.**, *Hermann I. Schlesinger*, and *Arthur B. Coleman*, sources of error in viscosity measurement, A., ii, 221.
- Bissell, D. W.**, and *Charles James*, gadolinium sodium sulphate, A., ii, 330.
- Bjercke, Alf.** See *Herbert Freundlich*.
- Bjerrum, Niels**, the ultra-red spectra of gases. III. The configuration of the carbon dioxide molecule and the laws of intramolecular forces, A., ii, 505.
- Black, Otis Fisher.** See *Carl Lucas Alsberg*.
- Black, (Miss) Vera Kathleen.** See *John Kerfoot Wood*.
- Blagoveschtschenki, A.**, content of amylase in ripening seeds of horse beans, A., i, 109.
- Blair, A. W.**, and *Harry C. McLean*, influence of calcium carbonate on maize, A., i, 590.
- Blaise, Edmond Émile**, syntheses by means of mixed organometallic derivatives of zinc; method of preparation of α -ketonic acids, A., i, 199.
the characterisation of chloroketones, A., i, 200.
- Blake, John Charles**, digestibility of bread. I. Salivary digestion *in vitro*, A., i, 578.
- Blakemore, Herbert S.** See *Charles C. Scalione*.
- Blanchetiére, A.**, relations between the chemical constitution of certain derivatives of amino-acids and the method of attack of the latter by bacteria, A., i, 699.
the estimation of the strength of a solution of oxalic acid, A., ii, 543.
- Blatherwick, Norman R.** See *N. W. Janney*.
- Bleuler, Hanns**, and *Arthur George Perkin*, an oxidation product of gallic acid, T., 529; A., i, 485.
- Blish, Morris J.** See *C. H. Bailey*.
- Blix, Gunnor**, the water constant of blood, A., i, 577.
- Blochin, W. von.** See *Wilhelm Prandtl*.
- Biom, A. V.**, hydrazone of diphenylenehydrazine, A., i, 838.
- Blomberg, C.** See *Francine Swart*.
- Bloor, W. R.**, blood-fat. II. Fat absorption and the blood lipoids, A., i, 176.
fat assimilation, A., i, 450.
distribution of the lipoids ("fat") in human blood, A., i, 687.

- Bloor, W. R.**, estimation of cholesterol in blood, A., ii, 275.
- Bloor, W. R., E. P. Joslin**, and **A. A. Hornor**, lipoids ("fat") of the blood in diabetes, A., i, 776.
- Bloor, W. R.**, and **Arthur Knudson**, separate estimation of cholesterol and cholesterol esters in small amounts of blood, A., ii, 650.
- Blum, William**, estimation of aluminium as oxide, A., ii, 493.
- Blumenthal, Philip Lee**, and **S. D. Averitt**, estimation of thiosulphate sulphur in lime-sulphur solutions by iodine, A., ii, 572.
- Blunck, Gustav**, colorimetric method for the detection of potato starch, A., ii, 500.
- Bock, Laurenz**, Egyptian blue, A., ii, 434.
- Bodansky, A.**, rennin from *Solanum elaeagnifolium*, A., i, 875.
- Bodenstein, Max**, combination of chlorine and hydrogen, A., ii, 422.
rate of loss of activity of illuminated chlorine, A., ii, 546.
- Bodenstein, Max**, and **Fritz Cramer**, dissociation of bromine vapour, A., ii, 552.
- Bodenstein, Max**, and **Hugh Stott Taylor**, rate of loss of activity of illuminated chlorine, A., ii, 463.
- Bodinus, Fr.**, simple method for the preparation of substituted indigotins, A., i, 429.
- Bodnár, J.**, the zymase and carboxylase of potato and sugar-beet, A., i, 539.
modification of Wohlgemuth's method of estimating the activity of amylase in presence of alkaloids, A., ii, 403.
- Bødtker, Eyvind**, the oxidising effect of sunlight, A., i, 2.
the benzylid-nementhones, A., i, 51.
- Böeseken, Jacob, J. C. van den Berg**, and **A. H. Kerstjens**, the acetylation and acetolysis of cellulose and starch by means of acetic anhydride, A., i, 308.
- Böeseken, Jacob**, and **(Mlle.) P. J. Bilheimer**, catalytic reduction with platinum; rôle of the solvent, A., i, 319.
- Böeseken, Jacob** [with **R. de Brauw, S. de Waard**, and **C. van Loon**], the influence of some hydroxy-acids on the electrical conductivity of boric acid, A., ii, 73.
- Böeseken, Jacob**, and **W. D. Cohen**, ph-tochemical phenomena. II. The photo-oxidation of alcohol with the co-operation of ketones, A., ii, 464.
- Böeseken, Jacob, L. W. Hansen**, and **S. H. Bertram**, the influence of some hydroxy-compounds on the electrical conductivity of boric acid, A., ii, 209.
- Böeseken, Jacob**, and **A. H. Kerstjens**, the hydrogen ion concentration of some complex polyhydroxyborate solutions, A., ii, 466.
- Böeseken, Jacob, A. H. Kerstjens**, and **C. E. Klamer**, the configuration of α -galactose and α -fructose, A., i, 596.
- Böeseken, Jacob**, and **P. E. Verkade**, the influence of boric acid on the conductivity of some dibasic acids, A., ii, 595.
- Böeseken, Jacob** [with **(Mlle.) O. B. van der Weide**, and **C. P. Mom**], catalytic reduction in the presence of platinum and palladium, A., ii, 239.
- Boehm, Rudolf**, croton-resin, A., i, 412.
- Boehm, Rudolf**, and **Konrad Bournot**, 2-phenylquinoline-4-carboxylic acid (atophan) and its oxidation products, A., i, 75.
- Boehringer & Sohne, C. F.**, preparation of derivatives of bismethylamino-tetra-aminoarsenobenzene substituted in the nucleus, soluble in water, A., i, 96.
process for hydrogenating unsaturated substances, A., i, 157.
- preparation of 2-chloro-4-dimethyl-aminobenzene-1-arsinic acid, A., i, 175.
- preparation of a bismethylhydrazino-tetra-aminoarsenobenzene, A., i, 175.
- preparation of a hexa-aminoarseno-benzene, A., i, 297.
- preparation of a tetra-aminodimethyl-aminoarsenobenzene, A., i, 297.
- preparation of dinitroalkylamino-phenylarsinic acids, A., i, 857.
- Boeké, Hendrik Enno**, the limits of mixed crystals in muscovite and biotite, A., ii, 570.
the general application of the regular tetrahedron for the representation of four-component systems: application to alkali and aluminous amphiboles, A., ii, 570.
- Boes, Johannes**, conversion of hydro-acridine into acridine, A., i, 76.
- Boes, Johannes**, and **H. Weyland**, estimation of formaldehyde in the presence of acetone, A., ii, 161.
- Böttger, Wilhelm**, and **Richard Heinze**, estimation of small quantities of mercury in [solutions of] great dilution, A., ii, 450.
- Bogert, L. Jean**. See **Frank Pell Underhill**.
- Bogert, Marston Taylor**, and **Edward Plaut**, the synthesis of certain substituted syringic acids, A., i, 146.

- Bogert, Marston Taylor, and George Scatchard,** quinazolines. XXXIII. New and sensitive indicator for acidimetry and for the determination of hydrogen-ion concentrations between the limits of 6 and 8 on the Sørensen scale, A., i, 672.
- Bogert, Marston Taylor, and John Ross Tuttle,** synthesis of *p*-cymene-2-carboxylic acid, and of *p*-cymene-3-carboxylic acid, together with certain of their derivatives, A., i, 601.
- Bogitch, B.**, the solidification curve of the system ammonium nitrate-lead nitrate, A., ii, 81.
- Bogitch, F.** See *Henri Le Chatelier*.
- Bogue, Robert H.**, adsorption of potassium and phosphate ions by typical soils of the Connecticut Valley, A., i, 110.
- Bois, E. F. du.** See *Du Bois*.
- Boiteau, G.**, preparation of organic anhydrides, and of corresponding new industrial products and their technical applications, A., i, 8.
- process for accelerating and assisting the fixation of acetylene in chemical reactions requiring the presence of a catalyst, A., i, 197.
- process of treating hydroxy-compounds with acetylene and new industrial products [diolefines] arising therefrom, A., i, 541.
- Bokhorst, S. C.** See *Andreas Smits*.
- Bokorny, Thomas**, fat in yeast, A., i, 455.
- the sources of the nitrogen of yeast, A., i, 530.
- nutrition of yeast with glycerol; also with other alcohols, A., i, 870.
- sensitiveness of certain beer-yeast enzymes, A., i, 871.
- Bolland, A.**, and *A. Krausz*, use of dry yeast in the estimation of sugar in urine, A., ii, 117.
- Bolle, Edouard.** See *Fritz Ephraim*.
- Bolton, Charles**, the acid of the gastric juice and gastric ulcer, A., i, 101.
- Bonardi, J. P.**, and *Charles James*, the separation of yttrium from the yttrium earths. III, A., ii, 102.
- Bond, Perry A.** See *William Jay Karslake*.
- Bone, William Arthur**, gaseous combustion, A., ii, 423.
- Bongiovanni, Corrado**, variety of decomposition of electrolytes in the light in relation to their degree of electrolytic dissociation, A., ii, 182.
- Booge, James Eliot.** See *James Kendall*.
- Booth, L. E.** See *Welton J. Crook*.
- Bordier, H.**, action of light on iodine and starch iodide in aqueous medium, A., i, 630.
- action of X-rays on iodine and starch iodide in aqueous solution, A., ii, 547.
- Borelius, G.**, the electrical phenomena at the surface of separation of aqueous solutions and insulators, A., ii, 512.
- Borgström, Johan Henrik Leonard**, approximate determinations of the boiling points of some alkali haloids, A., ii, 138.
- identity of kalk-canocrinite and meionite, A., ii, 145.
- melting points and boiling points of mineral sulphides, selenides, and tellurides of the metalloids, A., ii, 191.
- Borjanovics, Vojislav.** See *Robert Kremann*.
- Bormann, Walter.** See *Otto Ruff*.
- Bornwater, Johan Theodorus**, new synthesis of amido-oxalylbiuret and certain derivatives of oxalic acid, A., i, 20.
- Borsche, E.** See *Karl von Auwers*.
- Borsche, Walther, and K. Wunder**, oxonium compounds. II. Oxonium compounds with reactive methylene, A., i, 322.
- Borsum, Wilhelm.** See *Joachim Biehringer*.
- Bosco, G.**, and *R. Belasio*, detection of free mineral acids in wine, A., ii, 454.
- Bose, Debendra**, demonstration of the ionisation paths of the H-particles which are produced by collision of α -particles with hydrogen atoms, A., ii, 547.
- Bosworth, Alfred W.**, and *Lucius Lincoln van Slyke*, caseinogen of goat's milk, A., i, 351.
- soluble and insoluble compounds of goat's milk, A., i, 352.
- comparison of the composition of cow's milk, goat's milk and human milk, A., i, 352.
- Bosworth, Alfred W.** See also *R. J. Anderson*, and *Lucius Lincoln van Slyke*.
- Botazzoli, Filippo**, and *A. Craifaleanu*, nervous tissues. I. Chemical and physico-chemical properties of nerve juice, A., i, 298.
- Bougault, J.**, hydroxyphenylmaleic anhydride, A., i, 484.
- the diketotriazines; synthesis of 4-alkyl derivatives of semicarbazide, A., i, 609.
- preparation of acylsemicarbazides from semicarbazones of α -ketonic acids, A., i, 764.

- Bougault, J.**, acylsemicarbazides, A., i, 765.
semicarbazones of α -ketonic acids; α -iodocinnamic acids, A., i, 817.
- Bourdet, L.**, method for the analysis of magnesium chloride, A., ii, 198.
- Bournot, Konrad.** See *Rudolf Boehm*.
- Bourquelot, Émile [Élie]**, the biochemical synthesis of alkyl glucosides. III. Monoglucosides of polyhydric alcohols, A., i, 201.
the rotatory powers of the α - and β -alkyl-*d*-glucosides and alkyl-*d*-galactosides, A., i, 792.
- Bourquelot, Émile**, and *A. Aubry*, biochemical synthesis of a galactoside of saligenin, β -salicylgalactoside, A., i, 413.
biochemical synthesis of a galactobiose, A., i, 596.
biochemical synthesis of α -propyl-*d*-galactoside by means of a ferment contained in the air-dried bottom yeast of beer, A., i, 711.
- Bousfield, William Robert**, the study of the density and viscosity of aqueous solutions, with special reference to nitric acid. II. Viscosities, A., ii, 86.
- Bovard, Wm. M.** See *George W. Vinal*.
- Bovini, F.** See *Clemente Montemartini*.
- Bowers, W. G.** See *Joel H. Hildebrand*.
- Boyd, David Runciman**, the hydrolysis of sodium phenoxides in aqueous solution, A., i, 32.
- Boylston, H. M.**, the relative merits of various agents for the deoxidation of steel, A., ii, 623.
- Bradford, Samuel Clement**, adsorptive stratification in gels, A., ii, 474.
- Bradley, Harold Cornelius**, is autolysis an autocatalytic phenomenon? an interpretation, A., i, 582.
- Bradley, Harold Cornelius**, and *Joseph Taylor*, autolysis. III. The effect of reaction on liver autolysis, A., i, 582.
autolysis. IV. Latent period in autolysis, A., i, 691.
- Bradley, W. A.** See *William Ebenezer Ford*.
- Brady, Oscar Lisle**, and *Frederick Percy Dunn*, the isomerism of the oximes. VIII. Carbanilino- and carbethoxy-derivatives of the oximes and the mechanism of isomeric change in the oximes and their derivatives, T., 650; A., i, 651.
isomerism of the oximes. VII. 5-Bromo-*vanillinoxime*, 5-nitro-*vanillinoxime*, and 6-nitropiperonaloxime, A., i, 150.
- Brady, St. Elmo.** See *George Denton Beal*.
- Bragg, William Henry**, recent work on X-rays and crystals and its bearing on chemistry, T., 252; A., ii, 208.
- Bramley, Arthur**, binary mixtures. I. The densities and viscosities of mixtures containing phenol, T., 10; A., ii, 125.
binary mixtures. II. The densities and viscosities of mixtures containing substituted phenols, T., 434; A., ii, 376.
binary mixtures. III. Freezing-point curves, T., 469; A., ii, 371.
binary mixtures. IV. Heats of reaction and specific heats, T., 496; A., ii, 372.
- Bramley, Arthur.** See also *James Charles Philip*.
- Brand, Kurt**, and *Th. Eisenmenger*, transformation of 2:6-dinitro-4-hydroxylaminotoluene into 2:6:2':6'-tetranitroazoxytoluene, A., i, 509.
- Brandt, Leopold**, standardisation with ferric oxide as the basis of the volumetric estimation of iron in hydrochloric acid solution, A., ii, 539.
- Brann, Albert.** See *James Henri Walton*.
- Brannigan, Peter Joseph**, and *Alexander Killen Macbeth*, the quantitative absorption of light by simple inorganic substances. I. The haloids of the alkali metals and hydrogen, T., 1277.
- Braower, Jacob.** See *Albert A. Epstein*.
- Braude, S.** See *Paul Pfeiffer*.
- Braudó, (Mlle.) Ek. Maks.** See *Michael A. Rakuzin*.
- Brauer, E.** See *Arthur Rosenheim*.
- Braun, Julius von**, *tert*.-aminobenzyl alcohols and their derivatives. IV., A., i, 473.
the morphine alkaloids. II. and III., A., i, 500, 665.
synthesis of hydroxy-bases and homologous cholines, A., i, 631.
steric hindrance with tertiary aromatic amines. II., A., i, 647.
“benzoyldihydromethylketol-hydrazine” [6-hydrazino-1-benzoyl-2-methyldihydroindole] a new reagent for galactose, A., i, 757.
- Braun, Julius von**, and *E. Aust*, scission of the hydrogenated quinoline ring by reduction, A., i, 421.
the para-quinonoid constitution of pyronin, A., i, 663.
- Braun, Julius von**, and *K. Heider*, the indene series. II. Derivatives of 1:2-diketo-3-methylhydrindene, A., i, 729.

- Braun, Julius von**, and **L. Neumann**, scission of the dihydroindole ring by reduction, A., i, 742.
- Braun, Julius von**, and **Margarete Rawicz**, syntheses in the fatty-aromatic series. XII. Derivatives of *m*-phenylenediamine and *m*-nitroaniline with regard to their taste and haemolytic action, A., i, 470.
- Brauner, Bohuslav**, titration with permanganate in strongly alkaline solution, A., ii, 437.
- Brauns, Dirk Hendrik**. See *Claude S. Hudson*.
- Brauns, Reinhard Anton**, apatite from the Laacher See district; sulphateapatite and carbonate-apatite, A., ii, 532.
- Brauw, R. de**. See *Jacob Böeseken*.
- Brazier, Sidney Albert**. See *Thomas Slater Price*.
- Bresciani, U.**, oxidation of hydrogen sulphide by means of ozone in steam at 120°, A., ii, 136.
- Breteau, Pierre**, preparation of phosphorescent calcium sulphide, A., ii, 100.
- Brewster, R. Q.** See *Frank Burnett Dains*.
- Bridgman, P. W.**, black phosphorus, A., ii, 246.
- Brieger, Walter**. See *Emil Fischer*.
- Brigl, Percy**, cerebronic acid, A., i, 463.
- Brill, Harvey C.**, [the oil of] *Hydnocarpus venenata*, Gaertner; false chaulmoogra [oil], A., i, 874. the salicylic acid reaction of [soja] beans, A., i, 876.
- ethyl succinylsuccinate. II. A study of the absorption spectra of some derivatives, A., ii, 591.
- Briner, Emil**, simultaneous action of very high pressures and temperatures on chemical phenomena; cosmogonical applications; chemical origin of solar radiation; discussion of Arrhenius' theory, A., ii, 215. the mechanism of reactions in aqua regia, A., ii, 231.
- the condition of substances in the interior of the sun, A., ii, 415.
- Briner, Emil**, and **R. Senglet**, investigation of the carbides of aluminium, nickel, and copper, A., ii, 105.
- Brinton, Paul H. M. P.** See *Samuel L. Hoyt*.
- Brodetsky, S.**, and **B. Hodgson**, the absorption of gases in vacuum-tubes and allied phenomena, A., ii, 285, 511.
- Broek, A. van den**, isotopes of chemical elements collectively A., ii, 465.
- Broglie, Maurice de**, the absorption band *K* of the elements for X-rays, followed from bromine to bismuth, and the emission of a Coolidge tube towards the very short wave-lengths, A., ii, 509.
- Bronfenbrenner, J.**, so-called protective enzymes. VIII. The mechanism of anaphylaxis and antianaphylaxis, A., i, 181.
- so-called "protective enzymes"; anti-tryptic index and anaphylaxis. IX., A., i, 233.
- Broniewski, Witold**, the position of martensite in the iron-carbon diagram, A., ii, 440.
- Bronn, J.**, solubility of naphthalene in ammonia, A., ii, 349.
- Brooks, Benjamin T.**, zingiberol; a new sesquiterpene alcohol occurring in the essential oil of ginger, A., i, 408.
- Brooks, Benjamin T.**, and **Irwin W. Humphrey**, the presence of benzene homologues in the high-boiling distillates of petroleum, A., i, 379.
- Brooks, Benjamin T.** See also *Harry Essex*.
- Brown, Adrian John**, and **Frank Tinker**, rate of absorption of various phenolic solutions by seeds of *Hordeum vulgare*, and the factors governing the rate of diffusion of aqueous solutions across semipermeable membranes, A., i, 106.
- Brown, Denton J.** See *Eugene Paul Schoch*.
- Brown, F. E.** See *William Draper Harkins*.
- Brown, Glenn V.**, composition of selen-sulphur from Hawaii, A., ii, 531.
- Brown, H. L.** See *Ernest Anderson*.
- Brown, Percy E.**, and **H. W. Johnson**, sulphofication, A., i, 538.
- Brown, Percy E.**, and **G. A. Minges**, effect of some manganese salts on ammonification and nitrification, A., i, 703.
- Brown, William**, the preparation of collodion membranes of different permeability, A., ii, 129.
- Browne, Arthur Wesley**, and **O. R. Overman** oxidation of hydrazine. VII. The rôle of nitrous acid in the formation of azoimide, A., ii, 245.
- Browning, K. C.**, and **C. T. Symons**, a convenient thermostat for accurate specific gravity determinations and a gas pressure regulator, A., ii, 84.
- Browning, Philip Embury**, two burners for the demonstration and study of flame spectra, A., ii, 1.

- Browning, Philip Embury, G. S. Simpson**, and **Lyman E. Porter**, qualitative separation and detection of tellurium and arsenic and of iron, thallium, zirconium, and titanium, A., ii, 536.
- Browning, Philip Embury**, and **S. R. Spencer**, separation of caesium and rubidium by the fractional crystallisation of the aluminium and iron alums, and its application to the extraction of these elements from their mineral sources, A., ii, 563.
- Browning, Philip Embury**, and **Horace S. Uhler**, gallium-indium alloy, A., ii, 330.
- Bruckmiller, F. W.**, estimation of alkalinity of water, A., ii, 196.
rate of distillation of ammonia from water, A., ii, 489.
[estimation of] chlorides in the presence of thiocyanates, A., ii, 639.
nitrates and oxygen demand (in sewage), A., ii, 644.
- Brückner, Felix**. See **Sigmund Fränkel**.
- Bruhns, Gustav**, estimation of oxygen by Winkler's method, A., ii, 47, 146.
acidimetric estimation of oxalic acid, using methyl-orange as indicator, and its estimation by the iodide-iodate method, A., ii, 158.
potassium dichromate as a standard. I. and II., A., ii, 337, 581.
titrations with oxalic acid, using methyl-orange as indicator, A., ii, 533.
- Brun, Albert**, action of water vapour at high temperature on volcanic rocks, A., ii, 392.
- Brunel, Roger Frederick**. See **Marguerite Willcox**.
- Bruni, Giuseppe**, the so-called "lever law" in the theory of phases and in metallography, and an Italian work of 1788, A., ii, 19.
- Bruni, Giuseppe**, and **G. Levi**, chlorous acid and chlorites, A., ii, 27.
ammoniates of silver salts, A., ii, 482, 617.
- Brunner, Emil**. See **Fritz Fichter**.
- Brunner, W.** See **Adar Skita**.
- Bruyn, A. F. H. Lobry de**, the nitration of the three chloroacetanilides with nitric acid and of the three chloroanilines in sulphuric acid solution, A., i, 802.
- Bruyn, Cornelis Adriaan Lobry de**. See **Andreas Smits**.
- Bube, Walther**. See **Helmut Scheibler**.
- Buchanan, G. H.**, occurrence of germanium in zinc materials, A., ii, 486.
- Bucher, John Emery**, electrolytic and saponifying process for producing nitrile derivatives [oxamide], A., i, 799.
- Buckner, G. D.**, **Edgar H. Nollau**, and **Joseph Hoeing Kastle**, the feeding of young chicks on grain mixtures of high and low lysine content, A., i, 102.
- Bühler, L.** See **Ludwig Gattermann**.
- Bühn, Theodor**. See **Alfred Kirpal**.
- Bülow, Carl**, and **Peter Neber**, action of potassium cyanide on the 2:4-dichlorophenylhydrazone of oxal-ester-chloride [carbethoxyformyl chloride]; transformation of aceto- into cyano-acetic ester derivatives, A., i, 845.
- Buendía, Rogelio**. See **Juan Peset**.
- Bürger, Otto**, production of lactic acid in fermentation, A., i, 194.
- Bull, Henrik**, estimation of glycerol in fatty oils by means of sodium glyceroxide, A., ii, 584.
- Bunzel, Herbert Horace**, oxydases, A., i, 302.
relative oxydase activity of different organs of the same plant, A., i, 357.
- Burge, W. E.**, mode of action of ultraviolet radiation on living cells, especially in the eye, A., i, 284.
relation between the amount of catalase in the different muscles of the body and the amount of work done by these muscles, A., i, 693.
- Burgess, George Kimball**, and **I. N. Kellberg**, supposed allotropy of copper, A., ii, 102.
- Burgess, George Kimball**, and **H. Scott**, thermoelectric measurement of the critical points of iron, A., ii, 471.
- Burgess, George Kimball**, and **R. G. Waltenberg**, volatilisation of platinum, A., ii, 442.
- Burns, David**, precursor of creatine in chick muscle, A., i, 617.
- Burns, David**, and **John Boyd Orr**, the influence of flesh feeding on urinary creatinine, A., i, 865.
- Burns, J. Edward**, thorium; a new agent for pyelography, A., i, 618.
- Burrell, George A.**, and **G. W. Jones**, estimation of air, water vapour, and nitrous oxide in mixtures of these three constituents, A., ii, 537.
- Burrell, George A.**, and **G. G. Oberfell**, use of copper oxide for fractional combustion of hydrogen and carbon monoxide in gas mixtures, A., ii, 260.
- Burrell, George A.**, and **I. W. Robertson**, vapour pressures of acetylene, ammonia, and isobutane at temperatures below their normal boiling points, A., i, 6.

- Burrell, George A.**, and *I. W. Robertson*, the vapour pressures of sulphur dioxide and nitrous oxide at temperatures below their normal boiling points, A., ii, 81.
- Burrell, George A.** See also *Frank M. Seibert*.
- Burt, Frank Playfair**, and *Edward Charles Edgar*, the combining volumes of hydrogen and oxygen, A., ii, 427.
- Burton, Donald**. See *Henry Richardson Procter*.
- Burton, L. V.** See *C. G. MacArthur*.
- Bury, Paul**, the velocity of solution of liquids in caoutchouc, A., ii, 24.
- Busch, Max**, and *Ferd. Biehler*, stereochemistry of hydrazones of esters of dithiocarbonic acids, II., A., i, 760.
- Busch, Max** [with *Wilh. Cornelius*, and *Martin Starke*], stereochemistry of hydrazones of alkyl dithiocarbonates, I., A., i, 338.
- Busch, Max**, and *Herm. Kunder*, nitrosohydrazones and their rearrangement, A., i, 436.
- Busch, Max**, and *Hans Stöve*, removal of organically-combined halogen by means of catalytic reduction; estimation of halogens, A., ii, 534.
- Byers, Horace Greeley**, and *Seth C. Langdon*, anodic relations of passive iron with notes on polarisation potentials as influenced by external gas pressures, A., ii, 211.
- Byrom, T. H.**, the carburisation of iron at low temperatures, A., ii, 142.
- Byron, O.** See *Walter F. Rittman*.
- C.**
- Caballero y López, Ernesto**, velocity of crystallisation of supersaturated solutions, A., ii, 95.
- Cadre, Shunker Trimble**, and *John Joseph Sudborough*, additive compounds of *s*-trinitrobenzene with amino-derivatives of complex aromatic hydrocarbons, T., 1349.
- Cahen, Edward**, and *William Holdsworth Hurtley*, estimation of calcium, A., ii, 492.
- Cain, John R.**, and *H. E. Cleaves*, estimation of carbon in steels and irons by direct combustion in oxygen at high temperature, A., ii, 343.
- Cain, John R.**, *E. Schramm*, and *H. E. Cleaves*, preparation of pure iron and iron-carbon alloys, A., ii, 254.
- Calcagni, Gennaro**, action of derivatives of phenols on ethyl diazoacetate, II., A., i, 207.
- Calcagni, Gennaro**, action of ureides on ethyl diazoacetate, III., A., i, 551.
- Calcagni, Gennaro**, and *D. Marotta*, anhydrous sulphates, VIII. Manganese sulphate with lithium, sodium, and potassium sulphates, A., ii, 141.
- Calderaro, E.**, 4-nitrohydroxyketoperinaphthindene, A., i, 490.
- Caldwell, Robert John**, obituary notice of, T., 372.
- Caldwell, William**, chloro- and bromotriethylphosphinoacetaldehydes, T., 283; A., i, 311.
- Caldwell, William**, and *Harold Rex Septimus Clotworthy*, the fate of inorganic nitrogen in the metabolism of the dog, A., i, 521.
- Callow, Raphael Heber**, reaction velocity in a viscous (heterogeneous) medium, A., ii, 94.
- Callow, Raphael Heber**, *William Cudmore McCullagh Lewis*, and *Gerald Nodder*, studies in catalysis, III. Preliminary measurements of the infrared absorption spectra of hydrogen chloride, potassium chloride, and methyl acetate in aqueous solution, T., 55; A., ii, 134.
- Calvert, Robert Peyton**. See *Alexander Smith*.
- Cambi, Livio**, reaction of nitroprusside with thiocarbamide, A., i, 126.
- Cameron, Alexander Thomas**, biochemistry of iodine, II. The distribution of iodine in plant and animal tissues, A., i, 189.
- Campbell, Edward deMille**, can the dissociation theory be applied to solid solutions in steels?, A., ii, 37. the influence of heat treatment on the specific resistance and chemical constitution of carbon steels, A., ii, 142.
- Campbell, F. H.**, the vapour pressures and specific volumes of binary mixtures of volatile with non-volatile liquids, A., ii, 88.
- Cândea, C.** See *Negoitza Dănilă*.
- Cardoso, Ettore**, the critical point of gases liquefied with difficulty: nitrogen, carbon monoxide, oxygen, methane, A., ii, 85.
- consideration of the critical opalescence, A., ii, 216.
- Carles, P.** source of error in the estimation of tartaric acids in wine lees and tartars, A., ii, 58.
- officinal sodium sulphate, A., ii, 266.
- Carleton, Paul Whittier**, influence of some solvents on the rate of action of sodium with isoamyl bromide, A., ii, 382.

- Carlinfanti, C.**, and *M. Scelba*, estimation of small quantities of alkaloids, A., ii, 356.
- Carlson, Anton Julius, L. Hektoen**, and *E. R. Le Count*, the effects of commercial dextrose when fed to white rats, A., i, 449.
- Casale, L.**, nitrates of aminoazo-compounds, A., i, 225.
- Caspe, Joseph.** See *Casimir Funk*.
- Cassella & Co., Leopolda**, preparation of [chlorine] substituted products of toluene, A., i, 134.
- preparation of tetrachlorobenzaldehyde and new colouring matters therefrom, A., i, 148.
- Castets, J.**, new reaction of picric acid and its application, A., ii, 160.
- Cathcart, Edward Provan**, and *George Herbert Clark*, the action of barium chloride on the circulation; the antagonistic action of nicotine and curare, A., i, 192.
- Cathcart, Gertrude Dorman**, nitrogen distribution in the tissues and some of the factors which influence it, A., i, 615.
- Cattell, McKeen.** See *Jacques Loeb*.
- Cavazza, Alfredo**, estimation of carbon dioxide in carbonates decomposed by ammonium chloride solutions, A., ii, 49.
- composition and solubility of calcium hydrogen carbonate, A., ii, 530.
- chemical analysis of gypsum, A., ii, 577.
- Ceccherelli, Federico**, identification and estimation of "saccharin" [*o*-benzoic-sulphinide] in foodstuffs, A., ii, 60.
- Celicowski**, and *Ferdinand Pilz*, estimation of citrate-soluble phosphoric acid in basic slag by the iron citrate method, A., ii, 342.
- Cerdeiras, José J.**, glyceryl ester of tetrachlorotetraiodoteric acid, A., i, 199.
- preparation of iodine monochloride A., ii, 136.
- Cesáro, Giuseppe**, constitution of thio-salts, A., ii, 136.
- Chacko, I. C.**, optically positive cordierite, A., ii, 633.
- Chacón, Aníbal**, the benzene nucleus, A., i, 22.
- Challenger, Frederick**, organo-derivatives of bismuth, T., 250; A., i, 347.
- Chancel, F.**, estimation of zinc by electrolysis, A., ii, 198.
- Chandler, J.**, and *Solomon Farley Acree*, reactions of ions and molecules of acids, bases, and salts. I. Reaction of sodio-3-thio-1-phenylurazole and ethyl iodide in absolute ethyl alcohol at 25°, A., ii, 559.
- Chapin, Harold Canning.** See *Gregory Paul Baxter*.
- Chapin, Robert M.**, decomposition of tetrathionates in alkaline solution as a source of error in certain iodine titrations, A., ii, 261.
- methods for the analysis of lime-sulphur solutions, A., ii, 262.
- analysis of lime-sulphur solutions. II. Estimation of "poly-sulphur" A., ii, 340.
- Chapman, S.**, the law of distribution of molecular velocities and the theory of viscosity and thermal conduction in a non-uniform simple monatomic gas, A., ii, 416.
- Charrier, G.**, hydrolysis of the anthraquinonearylhydrazones with sulphuric acid, A., i, 511.
- etherification of *o*-hydroxyazo-compounds. VI, A., i, 572.
- reactions of nitrates of hydroxyazo-compounds, A., i, 610.
- Chase, W. S.**, solution of the cerium group oxides by certain acids, A., ii, 253.
- Chaskelis, P.** See *Siegmund Reich*.
- Chattaway, Frederick Daniel**, and *George Roger Clemo*, polymorphism in halogen-substituted anilides, T., 89; A., i, 256.
- Chattaway, Frederick Daniel**, and *Oscar Charles Ellington*, 3:5-dibromo- and 3:5-dichloro-phenylhydrazines, T., 587; A., i, 510.
- Chattaway, Frederick Daniel**, and *John Malthouse Harrison*, interaction of tetranitromethane and potassium ferrocyanide, T., 171; A., i, 245.
- Chattaway, Frederick Daniel**, and *George Lufour Hodgson*, derivatives of bromomethylhydrazines, T., 582; A., i, 509.
- Chattaway, Frederick Daniel**, and *William James Lambert*, monotropic polymorphic anilides, A., i, 140.
- transition points of the polymorphic phthalylhydrazides, A., i, 169.
- Chattaway, Frederick Daniel.** See also *Robert Reginald Baxter*.
- Chatterjee, Nihar Ranjan.** See *Rasik Lal Datta*.
- Chauvenet.** See *William Echsnér de Coninck*.
- Cheatam, Paul N.** See *William Cumming Rose*.
- Chemische Fabrik auf Aktien (vorm. E. Schering)**, preparation of a carbonate of sodium 2-phenylquinoline-4-carboxylate, A., i, 160.
- preparation of quinoline derivatives containing iodine, A., i, 333.

- Chemische Fabrik auf Aktien (vorm. E. Schering)**, preparation of liquid esters of 2-phenylquinoline-4-carboxylic acid and its derivatives, A., i, 333.
 preparation of diketopyrrolidine derivatives, A., i, 419, 502.
- Chemische Fabrik Buchau**, preparation of thionyl chloride and sulphur tetrachloride, A., ii, 28.
- Chemische Fabrik Griesheim-Elektron**, preparation of anthraquinone derivatives [mercaptans], A., i, 154.
 preparation of 3-nitro-2-aminoanthraquinone, A., i, 561.
 preparation of thiocarbamides of the anthraquinone series, A., i, 657.
- Chemische Fabrik von Friedr. Heyden**, preparation of nitro-compounds of phenylstibinic acids and their derivatives, A., i, 347.
 preparation of mercurial quinoline derivatives, A., i, 446.
 preparation of soluble alkali salts of mercury compounds, A., i, 518.
- Chemische Fabrik Rohner & Co.**, preparation of a [zinc] salt of phenylbenzyl-dimethylammoniumdisulphonic acid, A., i, 313.
- Chemische Fabrik vorm. Sandoz**, production of *o*-sulphamidobenzoyl-*p*-phenetidine, A., i, 208.
- Chemische Werke vorm. Dr. Heinrich Byk**, preparation of ether-like derivatives of barbituric acid, A., i, 163.
- Chenard, E.**, thermodynamics of fractional distillation, A., ii, 175.
- Cherchi, F.** See *Carlo Gastaldi*.
- Chernoff, Lewis H.** See *Arno Viehoever*.
- Chiavaglio, D.**, and *O. M. Corbino*, vapour pressure of glyceryl trinitrate (nitroglycerin) at the ordinary temperature, A., i, 462.
- Chlopin, Vitalius G.** See *Leo Alexandrovitsch Tschugaev*.
- Chochrakova, (Mle.) V. A.** See *S. S. Nametkin*.
- Chou, Tsan Quo.** See *Amé Pictet*.
- Choudhury, Jogendra Kumar.** See *Rasik Lal Datta*.
- Chowdhuri, Tarinicharan.** See *Pañchānar Neogi*.
- Christiansen, (Miss) Johanne**, hydrates of alcohols and fatty acids; ballistic electric investigations, A., ii, 75.
- Christie, A. W.**, estimation of phosphorus in plant materials, A., ii, 446.
- Chur, M.** See *Otto Fischer*.
- Church, (Sir) Arthur Herbert**, obituary notice of, T., 374.
- Ciamician, Giacomo Luigi**, and *Ciro Ravenna*, formation of glucosides by means of plants. II., A., i, 356.
 action of some organic compounds on plants, A., i, 537.
- Ciusa, Riccardo**, and *Luigi Vecchiotti*, action of bromine on certain hydrazones, A., i, 437.
- Claasz, Max**, preparation of oximino-sulphazone, A., i, 335.
 heterocyclic sulphones. II. Some derivatives of sulphazone, A., i, 424.
 heterocyclic sulphones. III. "Sulphurylindoxyl," A., i, 425.
 action of aldehydes on *o*-aminophenyl mercaptan; preparation of benzthiazolines, A., i, 669.
 heterocyclic sulphones. IV. Action of halogen compounds on sulphurylindoxyl, A., i, 752.
 the indigo chromophore, A., i, 839.
 heterocyclic sulphones. V. "Sulphurylindigo" and "sulphurylisatin," A., i, 841.
- Clapp, F. C.**, a non-spattering wash-bottle, A., ii, 525.
- Clarens, J.**, separation of the usual metals the sulphides of which are insoluble in dilute acids, A., ii, 449.
- Clark, A. L.**, viscosity of ethyl ether near the critical temperature, A., ii, 16.
- Clark, George Herbert.** See *Edward Provan Cathcart*.
- Clark, R. W.**, and *W. F. Hunt*, muscovite with unusual optical characters from a marble in Maryland, A., ii, 107.
- Clark, William Mansfield**, a hydrogen electrode vessel, A., ii, 75.
- Clark, William Mansfield**, and *Herbert A. Lubs*, hydrogen electrode potentials of phthalate, phosphate, and borate buffer mixtures, A., ii, 513.
 colorimetric estimation of the hydrogen ion concentration of bacteriological culture media, A., ii, 571.
- Clark, William Mansfield.** See also *Herbert A. Lubs*.
- Clarke, Lathain**, and *Roger Adams*, *n*-nonane, A., i, 2.
- Clarke, W. F.**, *Chester Newton Myers*, and *Solomon Farley Acree*, the hydrogen electrode, the calomel electrode, and contact potential, A., ii, 212.
 an ethylene electrode, A., ii, 288.
 oxidation and reduction, A., ii, 288.
- Clausmann, Paul.** See *Armand Gautier*.
- Clayton, Arthur**, the functions of the higher valencies, T., 1046; A., ii, 611.

- Clayton, William**, the thermal decomposition of hydrogen peroxide in aqueous solution, A., ii, 428.
- Cleaves, H. E.** See *John R. Cain*.
- Clementi, Antonino**, introduction of the guanidine group into the molecule of polypeptides. II., A., i, 91.
- enzymic scission of polypeptides by means of animal tissues and organs. I and II., A., i, 299, 450.
- arginase. IV., A., i, 451.
- synthesis of the new tripeptide, glycocamylglycylglycine, A., i, 633.
- the disturbing influence of certain physiologically important substances on the colour reaction between iodine and starch, A., ii, 400.
- new process to remove the humic substances formed by the acid hydrolysis of organic substances, A., ii, 504.
- Clemo, George Roger**. See *Frederick Daniel Chattaway*.
- Clotworthy, Harold Rex Septimus**. See *William Caldwell*.
- Clowes, George Henry Alexander**, rôle played by electrolytes in determining the permeability of protoplasm, A., i, 349.
- protoplasmic equilibrium, A., i, 583.
- Cobelli, Fabrizio**, preparation of hydrogen peroxide, A., ii, 612.
- Cobenzl, A.**, reductions with a solution of sulphur in alkali sulphide, A., i, 77.
- Cochrane, Donald C.**, estimation of ammonia nitrogen in steer's urine, A., ii, 112.
- Coehn, Alfred**, and **Josef Franken**, contact electricity of solid dielectrics against conducting and non-conducting liquids, A., ii, 171.
- Coehn, Alfred**, and **Gustav Sieper**, formation and decomposition of carbon dioxide in ultraviolet light, A., ii, 281.
- Coffin, H. W.** See *B. Kramer*.
- Cohen, Ernst [Julius]**, the metastability of the elements and chemical compounds in consequence of enantiotropy or monotropy, and its bearing on chemistry, physics, and technics. I., A., ii, 183.
- Cohen, Julius Berend, David Woodroffe**, and **Leonard Anderson**, the relation of position isomerism to optical activity. X. The methyl alkyl esters of phthalic acid and its nitro-derivatives, T., 222; A., ii, 206.
- Cohen, Julius Berend**. See also *Henry Drysdale Dakin*.
- Cohen, Lillian**. See *George Bell Frankforter*.
- Cohen, W. D.**, photochemical reduction of benzophenone by lactic acid, A., i, 490.
- photochemical reduction of α -diketones, A., i, 492.
- velocity of photochemical reduction of aliphatic-aromatic ketones, A., ii, 507.
- Cohen, W. D.** See also *Jacob Böeseken*.
- Cohn, Georg**, artificial resin acids, A., i, 825.
- colophony and abietic acid, A., i, 826.
- Colani, A.**, potassium uranyl oxalates, A., i, 629.
- Coleman, Arthur B.** See *Eugene C. Bingham*.
- Coleman, Clyde**. See *Hermann I. Schlesinger*.
- Collander, R.** See *Ossian Aschan*.
- Collie, John Norman**, a space formula for benzene. II., T., 561; A., i, 469.
- Collins, Russell J.**, and **Paul J. Hanzlik**, colorimetric method for the estimation of free formaldehyde and hexamethylenetetramine, A., ii, 457.
- Colson, Albert**, the heats of equilibrium and the law of saturated solutions, A., ii, 15.
- contradictions between the real and calculated solubility of certain sodium salts, A., ii, 84.
- the irrational character of the formulæ of solubility and heats of wetting, A., ii, 129.
- the consequences of the comparison of reversible solutions with saturated vapours, A., ii, 374.
- demonstration of the rational character of new formulæ of solubility, A., ii, 475.
- Combe and Meyer-Levi**, estimation of urea in blood, A., ii, 654.
- Comte**, the rapid estimation, by chemical analysis, of the potability of waters, A., ii, 537.
- estimation of the active chlorine content of hypochlorites, A., ii, 639.
- Comucci, Probo**, chemical composition of a sulpho-salt from S. Giorgio (Sardinia), A., ii, 568.
- Conant, James Bryant**. See *George Leslie Kelley*.
- Conestabile, G. C.** See *Mario Betti*.
- Conner, S. D.**, acid soils and the effect of acid phosphate and other fertilisers on them, A., i, 359.
- Conno, E. de**, and **R. Biazzo**, amidic hydrolysis of fats, A., i, 788.
- Conover, C. B.** See *Henry Briggs North*.

- Conrad, D. B.** See *W. G. Bateman*.
- Consortium für Elektrochemische Industrie**, preparation of acetaldehyde from acetylene, A., i, 465.
- preparation of ethyl acetate from acetaldehyde, A., i, 544.
- Constandachi, Andree.** See *Alfred Schaarschmidt*.
- Cook, Alfred Newton**, and *Sylvanna Elliott*, relative toxicity of substances found in foods, A., i, 586.
- Cook, Alfred Newton.** See also *Hilton Ira Jones*.
- Cook, Frank C.**, boron: its absorption and distribution in plants, and its effect on growth, A., i, 302.
- Cope, W. C.**, Kjeldahl modification for the estimation of nitrogen in nitro-substitution compounds, A., ii, 489.
- Copenhaver, Nat. H.** See *Henry G. Barbour*.
- Corbino, O. M.** See *D. Chiaraviglio*.
- Corell, M.** See *Leopold Spiegel*.
- Cornelius, Wilh.** See *Max Busch*.
- Corral, José Ma. de**, the electrometric estimation of the true reaction of the blood, A., ii, 120.
- Corsini, Fernanda.** See *Maurizio Padoa*.
- Costantino, A.**, the chemistry of muscles. IX. I. Inorganic and organic phosphorus of smooth and striated muscular tissue of birds. II. The formation of phosphoric acid by autolysis of the muscular tissue of birds, A., i, 450.
- the chemistry of muscles. X. Chemistry of phosphorus compounds in smooth mammalian muscle, A., i, 451.
- method for the estimation of inorganic phosphorus in body tissues and fluids, A., ii, 48.
- method for the extraction of creatine and creatinine from body tissues and fluids, A., ii, 62.
- Courtot, Charles**, the fulvene series, A., i, 475.
- Courtot, Charles.** See also *Victor Grignard*.
- Craifaleanu, A.** See *Filippo Bottazzi* and *G. Quagliariello*.
- Cramer, Fritz.** See *Max Bodenstein*.
- Crann, Thomas William.** See *Harry Medforth Dawson*.
- Crawford, Albert C.**, and *Walter K. Watanabe*, occurrence of β -*p*-hydroxyphenylethylamine in various mistletoes, A., i, 357.
- Crawford, Albert C.** See also *Walter K. Watanabe*.
- Crawford, F. M.** See *Eugene Paul Schoch*.
- Creighton, Henry Jermain Maude**, and *Herschel Gaston Smith*, the boiling-point of aqueous solutions of nitric acid at different pressures. II. The influence of water-retaining agents on the composition of the mixture of maximum boiling-point, A., ii, 97.
- Creighton, Henry Jermain Maude.** See also *David Fraser Harris*.
- Cretcher, Leonard H., jun.** See *Treat Baldwin Johnson*.
- Crispo, D.**, and *R. W. Tuining*, estimation of phosphoric acid by the citro-uranium method, A., ii, 342.
- Crocker, James Codrington**, the indirect determination of velocity of hydrolysis by the polarimetric method, A., ii, 95.
- Crommelin, Claude Auguste.** See *Heike Kamerlingh Onnes*.
- Crook, Welton J.**, testing of ores for the cyanide process, A., ii, 53.
- Crook, Welton J.**, *L. E. Booth*, and *Alfred Thiel*, electrolysis of alkaline solutions of potassium thiocyanate, A., ii, 501.
- Cross, Charles Frederick**, and *Edward John Bevan*, reactions and constitution of lignone, A., i, 467.
- Crowther, Charles**, and *Harold Rais-trick*, the proteins of the colostrum and milk of the cow, and their relations to serum proteins, A., i, 864.
- Crozier, W. J.**, ionic antagonism in sensory stimulation, A., i, 232.
- cell penetration by acids, A., i, 349.
- cell penetration by acids. II. Further observations on the blue pigment of *Chromodorus zebra*, A., i, 694.
- cell penetration by acids. III. Data on some additional acids, A., i, 694.
- indicators from animal tissues, A., ii, 337.
- Cruto, A.**, acenaphthenequinonearylhydrazones, A., i, 212.
- Csonka, Frank A.**, influence of ingested carbohydrate, protein, and fat on the sugar of the blood in phloridzin diabetes, A., i, 697.
- fate of ingested starch in phloridzin diabetes, A., i, 776.
- content of cholesterol and fatty substances in the blood, together with a modification of the calorimetric method for estimating cholesterol, A., ii, 349.
- colorimetric method for the estimation of acetone in urine, A., ii, 654.
- Cullen, Glenn E.** See *Donald D. van Slyke*.

Cunningham, Barbara Martin. See *Agnes Livingstone-Learmouth*.
Curtis, Harry A., and *Esbon Y. Titus*, the ternary system, carbon tetrachloride, alcohol, and water, A., ii, 91.
Curtius, Theodor, August Darapsky, and *Ernst Müller*, the so-called pentazole compounds of I. Lifschitz, A., i, 84.
Curtman, Louis J., and *P. Daschavsky*, the silver arsenate test for arsenic, A., ii, 491.
Cushny, Arthur Robertson, quantitative observations on antagonism, A., i, 102.
Cushny, Arthur Robertson, and *Charles C. Lieb*, pharmacology of the respiratory centre. II., A., i, 99.
Cusmano, Guido, reduction and oxidation processes in the terpene group, A., i, 267.
Cutler, Ethel. See *Thorburn Brailsford Robertson*.
Czak, J. See *N. Zachariades*.

D.

Dains, Frank Burnett, H. R. O'Brien, and *C. L. Johnson*, formamidines. V. Some pyrazolone derivatives, A., i, 676.
Dains, Frank Burnett, R. C. Roberts, and *R. Q. Brewster*, action of certain acid reagents on the substituted carbamides and thiazole. II., A., i, 432.
Dains, Frank Burnett, and *A. E. Stephenson*, reactions of the formamidines. VI. Some thiazole derivatives, A., i, 751.
Daish, Arthur John, the distribution of maltase in plants. II. The presence of maltase in foliage leaves, A., i, 535.
 the distribution of maltase in plants. III. The presence of maltase in germinated barley, A., i, 535.
Dakin, Henry Drysdale, interaction of hydroxy- and amino-acids with nitrophenylhydrazine, with special reference to the formation of glyoxal derivatives, A., i, 594.
 oxidation of amino-acids to cyanides, A., i, 598.
Dakin, Henry Drysdale, Julius Berend Cohen, M. Dufresne, and *Joscpf Kenyon*, the antiseptic action of substances of the chloroamine groups, A., i, 533.
Dakin, Henry Drysdale. See also *George Berger*.
Dale, Henry Hallett, and *Percival Hartley*, anaphylaxis to the separated proteins of horse-serum, A., i, 859.

Dale, Henry Hallett, and *George Stanley Walpole*, the factors concerned in the formation of thrombin, A., i, 859.
Dale, J. K., bromoacetylxylose and β -triacylmethylxyloside, A., i, 117.
Dale, J. K. See also *Claude S. Hudson*.
Danaila, Negoitza, and *C. Cândea*, condensation of phenol and dimethyl-anilino-thionaphthenquinones and their coloured derivatives, A., i, 497.
Danecki, A. See *Friedrich Kehrmann*.
Daniels, E. A. See *George Bell Frankforter*, and *William Hammatt Hunter*.
Daniels, Farrington, an adiabatic calorimeter, A., ii, 517.
Danysz, Jean, and *Louis Wertenstein*, attempts made to influence the velocity of radioactive transformations by means of α -rays, A., ii, 69.
Darapsky, August, and *Dietrich Hillers*, the hydrazide of cyanoacetic acid, oximinocyanoacetic acid, and nitrocyanoacetic acid, A., i, 127.
Darapsky, August, and *Hans Spannagel*, the preparation of aliphatic amino-hydrazines, A., i, 167.
Darapsky, August. See also *Theodor Curtius*.
Darrah, J. E., and *C. G. MacArthur*, nitrogenous constituents of brain lecithin, A., i, 366.
Daschavsky, P. See *Louis J. Curtman*.
Datin, P., maximum vapour pressures of camphor at moderate temperatures, A., ii, 373.
Datta, Aswini Kumar, and *Nilratan Dhar*, accuracy of copper voltmeters, A., ii, 409.
 constitution of chromic acid. I., A., ii, 484.
Datta, Rasik Lal, and *Nihar Ranjan Chatterjee*, halogenation. XII. Formation of chloropicrin and tetrachloroquinone by the action of aqua regia on organic substances, A., i, 705.
Datta, Rasik Lal, and *Jogendra Kumar Choudhury*, halogenation. X. Chloric acid as a reagent in organic chemistry, A., i, 469.
Datta, Rasik Lal, and *Francis Vito Fernandes*, halogenation. XI. Chlorination with aqua regia; chlorination of hydrocarbons, A., i, 715.
Daudt, Herbert Wilkens. See *I. K. Phelps*.
Dauzère, C., the crystallisation of phenyl ether, A., ii, 229.
 the formation of a cellular network during crystallisation, A., ii, 300.
Davies, John Llewelyn, obituary notice of T., 369.

- Davis, Clarke Edwin.** See *John Livingston Rutgers Morgan*.
- Davis, Helen, and Nellis B. Foster,** accumulation of nitrogen in the tissues in renal disease, A., i, 234.
- Davis, Harold S.** supersaturated solutions of liquids in liquids, A., ii, 419.
- Davis, Marguerite.** See *Elmer Verner McCollum*.
- Davis, Paul Bell, and Harry Clary Jones,** the viscosities of solutions of caesium salts in mixed solvents, A., ii, 87.
- Davis, Paul Bell, W. S. Putnam, and Harry Clary Jones,** [electrical] conductivity and viscosity of some rubidium and ammonium salts in ternary mixtures of glycerol, acetone, and water at 15°, 25°, and 35°, A., ii, 16.
- the conductivity and viscosity of solutions in formamide, A., ii, 74.
- Davis, William Alfred,** the distribution of maltase in plants. I. The function of maltase in starch degradation and its influence on the amylolytic activity of plant materials, A., i, 535. the interaction of perchloric acid and potassium sulphate as an example of reversible change, A., ii, 50. use of enzymes and special yeasts in carbohydrate analysis, A., ii, 202. preparation of invertase for the estimation of sucrose, A., ii, 351.
- Davission, B. S.**, titrimetric estimation of nitrites, A., ii, 576.
- Davission, B. S., E. R. Allen, and B. M. Stubblefield,** aeration method for ammonia, A., ii, 643.
- Dawson, Harry Medforth, and Thomas William Crann,** the dual theory of acid catalysis; a comparison of the activities of certain strong acids, T., 1262.
- Day, Jesse E.** See *William Lloyd Evans*.
- De, Rajendralal.** See *Prafulla Chandra Ray*.
- Dean, Harry FitzGibbon, and Maximilian Nierenstein,** 2-hydroxy-1-keto-4-methylene-1:4-dihydronaphthalene, T., 593; A., i, 555.
- Dearle, Raymond C.**, emission and absorption in the infra-red spectrum of mercury, A., ii, 590.
- Debierne, André,** the laws of radioactive transformation, A., ii, 168. considerations on the mechanism of radioactive changes and the constitution of atoms, A., ii, 168.
- Dehn, William Maurice,** Baly's theory of chemical reaction and reactivity, A., ii, 240.
- Deiss, Eugen,** [colloidal arsenates], A., ii, 247.
- Delacre, Maurice,** the constitution of dypnopinacone and its derivatives, A., i, 479.
- Deleanu, Nicolas T.,** the hydrolysis of vegetable proteins by papain, A., i, 296. peptolytic enzyme of *Ficus carica*, A., i, 536.
- Deliperi, (Miss) Daria.** See *Luigi Mascarelli*.
- Demoussy, Ém.,** influence of hydrogen peroxide on germination, A., i, 356.
- Dempster, A. J.,** the ionisation and dissociation of hydrogen molecules and the formation of H₂, A., ii, 284.
- Denigès, Georges,** new constitutional formulae for ferrocyanocompounds, A., i, 310. new reaction of thiocyanates, A., ii, 61.
- a general reaction for alkaloids containing a phenolic group of vegetable or animal origin (morphine and its derivatives, cupreine, adrenaline, etc.), A., ii, 544.
- Denis, Willey,** the effect of ingested purines on the uric acid of the blood, A., i, 180. the influence of salicylates on the elimination of uric acid and other waste products from the blood, A., i, 230. creatine in human muscle, A., i, 772.
- Denis, Willey, and James H. Means,** the influence of salicylate on metabolism in man, A., i, 614.
- Denis, Willey.** See also *Otto Folin*.
- Dennis, Arthur C.** See *Francis C. Frary*.
- Derby, Ira Harris, and Victor Yngve,** the dissociation tensions of certain hydrated chlorides and the vapour pressures of their saturated solutions, A., ii, 516.
- Derick, Clarence G., and Oliver Kamm,** the structure of the dihydro-β-naphthoic acids, A., i, 394.
- Desch, Cecil Henry,** physical and mechanical factors in corrosion, A., ii, 439.
- Desch, Cecil Henry, and Henry Hyman,** the micro-chemistry of corrosion. IV. Gun metal, A., ii, 138.
- Devaux, Henri,** rapid action of saline solutions on living plants; reversible displacement of a part of the basic substances contained in the plant, A., i, 457.

- Deventer, Charles Marius van**, galvanic "exaltation" of metals by alcohol, A., ii, 172.
 potential relations of aluminium and zinc, A., ii, 369.
 galvanic exaltation of metals in aqueous solution, A., ii, 369.
- Devine, Annie.** See *Hugh Ryan*.
- Dewey, Frederic P.** See *C. E. van Orstrand*.
- Dey, Binan Bihari**, the coumarin condensation, A., i, 57.
- Dey, Manik Lal.** See *Prafulla Chandra Rây*.
- Dhar, Nilratan**, catalysis. I. and II., A., ii, 236.
 electrolytic dissociation theory, A., ii, 515.
- Dhar, Nîlratan.** See also *Aswini Kumar Datta*.
- Dhar, Surendranath**, some xanthone derivatives and xanthone colouring matters, T., 744; A., i, 661.
- Dhéré, Charles**, and *G. Vegezzi*, acid haemochromogen, A., i, 612.
 the influence exercised by the degree of reduction of the haemochromogens on their spectral properties, A., i, 681.
 the pigmentary composition of hepatochlorophyll, A., i, 863.
- Dhommée, René**, estimation of albumin in urine, A., ii, 403.
 estimation of total nitrogen in urine, A., ii, 489.
 estimation of the alkalinity of waters, A., ii, 538.
- Diakonoff, Mlle.** See *Edgard Zunz*.
- Dickson, J. M.** See *A. Griffiths*.
- Dieckmann, Walter**, keto-enol isomerism. II. Ethyl formylphenylacetate and methyl oxalacetate, A., i, 820.
 keto-enol isomerism. I. The supposed existence of isomerism with keto-dibenzoylacetyl methane, A., i, 822.
- Diels, Otto**, and *Ernst Fischer*, N-demethylocodeine (norcodeine). II., A., i, 834.
- Diels, Otto**, and *Konrad Ilberg*, hydroxymethylenebutanone and a new method of preparation for hydroxymethylene compounds, A., i, 372.
- Diels, Otto**, and *Karl Schleich*, formation of isoxxazolones from aldehydes and oximinolevulic acid, A., i, 423.
 formation and properties of compounds from 1:2-diketones and benzamidine. I. Diacetyl and benzamidine, A., i, 842.
- Diepolder, Emil.** See *E. Steinhauser*.
- Diesselhorst, G.** See *F. Reiss*.
- Diesselhorst, H.**, and *Herbert Freundlich*, the double refraction of vanadium pentoxide solution, A., ii, 65.
- Diederici, C.** [determination of the velocity of sound in gases], A., ii, 174.
- Di Franco, S.**, cyclopope of Santa Maria la Scala (near Acireale), A., ii, 444.
- Diges, Sterling H.** See *Graham Edgar*.
- Dillon, Thomas.** See *Hugh Ryan*.
- Dilthey, Walther**, pyrylium compounds, A., i, 829.
- Dilthey, Walther**, and *E. Last*, action of magnesium aryl haloids on dicarboxylic acids, A., i, 821.
- Dimmitt, Frank W.** See *William Cumming Rose*.
- Dimroth, Otto**, and *Reinhold Fick*, kerm- dye. III., A., i, 561.
- Dimroth, Otto**, and *Ernst Schultze*, degradation of hydroxyanthraquinones to derivatives of naphthaquinone, A., i, 563.
 anthraquinones, A., i, 563.
- Dittler, Emil**, and *A. von Graffenreid*, estimation of tungsten by Fieber's method ; separation of tin from tungsten, A., ii, 582.
- Ditz, Hugo**, the supposed formation of persilicate by the action of air on solutions of sodium silicate, A., ii, 99.
- Ditz, Hugo**, and *Friedrich Bardach*, new method for the iodometric estimation of vanadium ; behaviour of quinquevalent and quadrivalent vanadium towards the halogen acids, A., ii, 347.
- Dixon, Henry H.**, and *William Ringrose Gelston Atkins*, osmotic pressure in plants. IV. Constituents and concentration of the sap in the conducting tracts, and on the circulation of carbohydrates in plants, A., i, 107.
 osmotic pressure in plants. V. Seasonal variations in the concentration of the cell-sap of some deciduous and evergreen trees, A., i, 108.
 osmotic pressure in plants. VI. Composition of the sap in the conducting tracts of trees at different levels and at different seasons of the year, A., i, 781.
- Dixon, Augustus Edward**, and *John Taylor*, the interaction of aldehydes and thiocarbamides in the presence of acids, T., 1244.
- Dobbin, Leonard**, Prout in connexion with Avogadro's hypothesis, A., ii, 183.
 Crum's and Marshall's tests for manganese, A., ii, 200.
- Doby, P.**, plant ferments. IV. The invertase of potato leaves, A., i, 194.

- Dodd, Frank William**, integral atomic weights. I. and II., A., ii, 183.
- Dodge, Carolyn F.** See *James Flack Norris*.
- Dodge, Francis D.**, *isopulegolphosphonic acid*, A., i, 155.
some derivatives of coumarin, A., i, 413.
- Dodge, Francis D.**, and *Alfred E. Sherndal*, constituents of oil of cassia, A., i, 155.
- Döhle, Wilhelm**. See *Berthold Rassow*.
- Dolinski, J.**, and *K. Dziewoński*, a new transformation of acenaphthylene, and synthesis of diacenaphthylidene, a new yellow hydrocarbon, A., i, 138.
- Domanicki, N.**, etherates of magnesium haloids, A., i, 198.
- Dominicis, Angelo de**, connexion between absorption and coagulation and its influence on the soil, A., i, 240.
transcopia: new method for the detection of human blood, A., ii, 656.
- Domke, A.** See *Nicolai N. Voroshcov*.
- Donaldson, J. W.**, gases occluded in alloy steels, A., ii, 622.
- Donk, A. D.**, determinations in the system lead sulphate, sulphuric acid, and water, A., ii, 180.
- Donnelly, Joseph L.** See *Harry Shipley Fry*.
- Dorée, Charles**, and *Lionel Orange*, cholesterol and coprosterol, III. The ozonides of cholesterol. IV. Action of bromine on cholesteryl benzoate, T., 46; A., i, 261.
- Dorfmüller, G.** See *Siegfried J. Thannhauser*.
- Doroshevskii, Antony G.**, and *V. I. Fridman*, distribution of solvents between solutes. IV. Electrical conductivity of mixtures of acids, A., ii, 121.
- Doroshevskii, Antony G.**, and *G. S. Pavlov*, certain conditions of oxidation of organic compounds by permanaganate, A., ii, 24.
- Dover, (Miss) Mary Violet**, and *John W. Marden*, a comparison of the relative efficiency of laboratory reflux condensers, A., ii, 551.
- Dover, (Miss) Mary Violet**. See also *John W. Marden*.
- Drakeley, Thomas James**, the influence of iron pyrites on the oxidation of coal, T., 723; A., ii, 528.
- Drew, Harry Dugald Keith**. See *George Senter*.
- Dreyer, Georges**, and *Arthur Duncan Gardner*, the estimation of the relative turbidity or opacity of fluid suspensions including bacterial emulsions, A., ii, 636.
- Driesen, Joh.**, determination of the α - β -transformation in pure carbon steels by means of the thermal expansion, A., ii, 484.
- Drogin, I.**, and *Martin Andre Rosanoff*, detection and estimation of halogens in organic compounds, A., ii, 338.
- Drucker, Carl**, *Emilio Jiméno Gil*, and *W. Kangro*, vapour pressure of liquid substances at low temperatures, A., ii, 82.
- Drummond, Jack Cecil**, the growth of rats on artificial diets containing lactose, A., i, 522.
the distribution of nitrogen in the proteins of tumours and of normal tissues, A., i, 866.
the volumetric estimation of total sulphur and sulphates in small quantities of urine, A., ii, 147.
- Drushel, William Allen**, simple and mixed alkyl phosphates, A., i, 113.
- Drushel, William Allen**, and *C. M. Elston*, estimation of small quantities of sulphide sulphur, A., ii, 535.
- Drushel, William Allen**, and *W. H. T. Holden*, preparation and properties of hydroacrylic esters, A., i, 12.
- Drushel, William Allen**, and *D. R. Knapp*, preparation of glycine and ethyl carbonate, A., i, 19.
- Dubin, Harry**, physiology of the phenols, A., i, 695.
- Du Bois, Eugene F.** See *Frank C. Gephart*.
- Dubsky, J. V.**, hydrogen peroxide as a hydrolytic agent, A., i, 550.
quantitative micro-elementary analysis of organic substances, A., ii, 265.
- Dubsky, J. V.**, [with *Th. Beer* and *H. Frank*], neutralisation of the affinity of main and subsidiary valencies in compounds of a higher order, II., A., i, 541.
- Dubsky, J. V.**, [with (*Frau*) *St. Izdebska-Domanska*, and (*Frl.*) *W. D. Wensink*], direct nitration of aliphatic imino-compounds. III. Action of absolute nitric acid on derivatives of imino-dipropionic acid, A., i, 636.
- Dubsky, J. V.**, [with *J. Petters*], direct nitration of aliphatic imino-compounds. I. Action of absolute nitric acid on 3:5-diketo-1-methylhexahydro-1:4-diazine, A., i, 635.
- Dubsky, J. V.**, and (*Frl.*) *W. D. Wensink*, iminodi-isobutyronitrile, A., i, 635.
direct nitration of aliphatic imino-compounds. II. Action of absolute nitric acid on 3:5-diketohexahydro-1:4-diazine-1-acetamide, A., i, 672.

- Dubsky, J. V.** See also *Antoine Paul Nicolas Franchimont*.
- Dudley, Boyd**, the thermal conductivity of refractories, A., ii, 12.
- Dufresne, M.** See *Henry Drysdale Dakin*.
- Duin, C. F. van**, the influence of capillary-active substances on the stability of an arsenic trisulphide sol, A., ii, 131.
- Dunlop, Janette G.** See *Charles Glover Barkla*.
- Dunlop, John Gunning Moore**, 3-gem-dimethylpiperidine, A., i, 159.
- Dunn, Frederick Percy.** See *Oscar Lisle Brady*.
- Dupré, J. V.** See *C. J. Lynde*.
- Durand, J.** See *Marcel Murat*.
- Duruttis, M.**, Japanese oil of pepper (from *Xanthoxylum piperitum*, D.C.), A., i, 412.
- Dziewoński, K.** See *J. Doliński*.
- E.**
- Eakle, Arthur Starr**, xanthophyllite in crystalline limestone, A., ii, 443.
- Eastlack, Herbert E.** See *Hal Truman Beans*, and *Alexander Smith*.
- Eastman, Ermon Dwight.** See *Joel H. Hildebrand*.
- Ebert, R.** See *Ludwig Gattermann*.
- Eck, Pieter Noach van**, silver chromate, A., ii, 639.
- Eckerlin**, use of the colouring substance of red cabbage as an indicator, A., ii, 44.
- Eckmann, A.** See *Josef Tambor*.
- Eckstein, H. C.** See *Harry Sands Grindley*.
- Eddy, Walter H.**, isolation of a growth-producing substance from the pancreas of the sheep, A., i, 862.
- Edelmann, Adolf**, test for urobilin in urine and feces, A., ii, 164.
- Eder, Josef Maria**, the arc spectrum of cassiopeium, aldebaranium, erbum, and the elements separated from thulium, A., ii, 277.
- Edgar, E. C.** See *Frank Playfair Burt*.
- Edgar, Graham**, a rapid method for the estimation of copper and iron, A., ii, 346.
- estimation of vanadic acid after reduction by metallic silver, A., ii, 495.
- Edgar, Graham**, and *Sterling H. Diggs*, diffusion of iodine in potassium iodide solutions, A., ii, 227.
- Edlbacher, Siegfried**, occurrence of arginine in the animal organism and its recognition by means of the formaldehyde method, A., i, 524.
- Edson, R.**, and *Douglas McIntosh*, the preparation of metallic vanadium, A., ii, 143.
- Edson, R.** See also *Douglas McIntosh*.
- Edwards, A.**, estimation of benzene and toluene in commercial mixtures, A., ii, 452.
- Edwards, Charles Alfred**, metallic crystal twinning by direct mechanical strain, A., ii, 130.
- Edwards, Charles Alfred, J. N. Greenwood**, and *H. Kikkawa*, initial temperature and cooling velocities of a chromium steel, A., ii, 622.
- Edwards, V. C.** See *Alvin Sawyer Wheeler*.
- Efron, Jean**, influence of salts on the amyloyisis of bread, A., i, 298.
- influence of phosphates in the intragastric amyloyisis, A., i, 448.
- Egloff, Gustav**, thermal decomposition of the aliphatic hydrocarbon derivatives of naphthalene, A., i, 716.
- Egloff, Gustav**, and *Thomas J. Twomey*, production of aromatic hydrocarbons from paraffin wax, A., i, 553.
- re-cracking of a cracked oil produced from petroleum, A., i, 785.
- the time factor in the formation of aromatic hydrocarbons from a paraffin base oil, A., i, 786.
- Egloff, Gustav**. See also *John Livingston Rutgers Morgan*, and *Walter F. Rittman*.
- Ehrenberg, Paul**, and *Guy Given*, colloidal clay, A., ii, 18.
- Ehrlich, J.**, estimation of alcohol in the presence of phenol, A., ii, 349.
- Ehrlich, Paul**, and *P. Karrer*, arsenometallic compounds, A., i, 95.
- Eichwald, Egmont**. See *Emil Abderhalden*.
- Einhorn, Jos. A.**, esters of phenols, A., i, 33, 473.
- Eisenmenger, Th.** See *Kurt Brand*.
- Eiser, Oskar**. See *Fritz Ullmann*.
- Elbs, Karl**, and *H. Lerch*, dehydrodivanillin, A., i, 315.
- Elias, Alfred**. See *Hugo Simonis*.
- Eikind, Ephraim**. See *Fritz Fichter*.
- Ellenberger, W.**, *Arthur Scheunert*, *Walther Grimmer*, and *A. Hopfe*, digestion of cellulose, A., i, 588.
- Ellington, Oscar Charles**. See *Frederick Daniel Chattaway*.
- Ellingworth, S.** See *Sydney Alfred Shorter*.
- Elliott, Sylvanna**. See *Alfred Newton Cook*.
- Ellis, James H.**, the free energy of hydrochloric acid in aqueous solution, A., ii, 369.

- Elston, C. M.** See *William Allen Drushel*.
- Elter, F.**, two new *N*-arylnaphthatriazoles, A., i, 82.
- Emde, Hermann**, diaminofluorenes, A., i, 77.
- Emery, William O.**, organic periodides. I Periodides of phenacetin, methacetin, and trphen n, A., i, 391.
- Emich, Friederich**, qualitative microanalysis, A., ii, 45.
- Emmerich, Rudolf**, and *Oscar Loew*, influence of calcium salts on reproduction, A., i, 102.
- Emmert, Bruno**, preparation of 4-hydroxypiperidine, A., i, 667. compounds of pyridine with the alkali metals, A., i, 668. preparation of derivatives (esters) of 4-hydroxypiperidine and its *N*-alkyl derivatives, A., i, 835.
- Enell, Henrik**, volumetric estimation of cadmium and zinc, A., ii, 115. volumetric studies, A., ii, 572.
- Engfeldt, N. O.**, amount of acetone in milk, A., i, 527.
- Engle, W. D.**, and *R. G. Gustavson*, volumetric method for the estimation of cobalt, A., ii, 649.
- Enklaar, Cornelis Jacobus**, the Wagner-Saytzeff reaction with olefinic aldehydes, A., i, 371.
- Enslow, L. H.** See *W. B. D. Penniman*.
- Eoff, J. R.** See *B. G. Hartmann*.
- Eoff, J. R., jun.** See *W. B. Alwood*.
- Ephraim, Fritz**, and *Edouard Bolle*, the nature of subsidiary valencies. XII. Ammines of copper, A., ii, 104.
- Ephraim, Fritz**, and *Isaac Kornblum*, the nature of subsidiary valencies. XIII. Complexes with sulphur dioxide, A., ii, 614.
- Epstein, Albert A.**, and *Paul W. Aschner*, effect of surgical procedures on the amount of dextrose in the blood, A., i, 521.
- Epstein, Albert A.**, and *George Baehr*, the effect of phloridzin on the formation of glycogen in the liver, A., i, 232. experimental diabetes after pancreatectomy, A., i, 234.
- Epstein, Albert A.**, *Joseph Reiss*, and *Jacob Branower*, effect of surgical procedures on blood-sugar and renal permeability, A., i, 685.
- Erlenmeyer, [Friedrich Gustav Carl Emil, jun.]**, active cinnamic acids, A., i, 480.
- Escher, W. von.** See *Fritz Foerster*.
- Eschenhahn, E. V.**, estimation of sulphur in spent oxide, A., ii, 263.
- Essex, Harry**, *Harold Hibbert*, and *Benjamin T. Brooks*, hydrolysis of chloropentanes as affected by high pressure, A., i, 593.
- Eucken, Arnold**, the thermal behaviour of certain compressed and condensed gases at low temperatures, A., ii, 470.
- Euler, Beth**, and *Hans von Euler*, detection of fermentation enzymes in the animal body, A., i, 772.
- Euler, Hans von**, solubility of amino-benzoic acid in salt solutions, A., i, 727. photochemical decomposition of halogenoacetic acids in benzene and ether, A., ii, 546.
- Euler, Hans von**, and *E. Hille*, primary changes of the hexoses in alcoholic fermentation, A., i, 194.
- Euler, Hans von**, and *Erik Löwenhamn*, chemical composition and formation of enzymes. XII., A., i, 780. a case of elevation of solubility, A., ii, 476, 520.
- Euler, Hans von**, and *T. Tholin*, action of pho-phates on alcoholic fermentation at different concentrations of hydroxyl ions, A., i, 780.
- Euler, Hans von.** See also *Beth Euler*.
- Evans, Evan Jenkins**, absorption spectra of the vapours of inorganic salts, A., ii, 167.
- Evans, Percy Norton**, boiling and condensing points of alcohol-water mixtures, A., i, 305.
- Evans, William Lloyd**, and *Jesse E. Day*, oxidation of ethyl alcohol by means of potassium permanganate, A., i, 362.
- Evans, Eric Doddrell**, *Edgar Cranthorpe Gifford*, and *Walter Edward Lambourne Griffiths*, action of alkalis on the nitrosoamines of 4-piperidone derivatives, A., i, 72.
- Ewald, Gottfried**. See *Emil Abderhalden*.
- Ewald, W. F.** See *Jacques Loeb*.
- Ewing, P. V.** See *C. A. Wells*.
- Ewins, Arthur James**, the estimation of arsenic in organic compounds, T., 1355. the isolation of methylguanidine by the silver method, A., i, 528.
- Eyndhoven, A. J. von**, estimation of naphthalene in coal gas, A., ii, 583.

F.

Facchinetti, Carlo. See *Friedrich Kehrmann*.

- Fahrion, Wilhelm**, the autoxidation of colophony, A., i, 492.
fatty oils in the light of mesomorphic polymerisation, A., i, 628.
- Fajans, Kasimir**, the question of isotopic elements. II, A., ii, 169.
the properties of isotopic elements in the solid state, A., ii, 406.
- Falcke, Victor**, reactions between ferrous oxide and carbon and between carbon monoxide and iron, A., ii, 484.
- Fales, H. A.**, and **John Maurice Nelson**, the effect of sodium chloride on the action of invertase, A., i, 174.
- Falk, Kaufman George**, and **Kanematsu Sugiura**, enzyme action, A., i, 439.
a comparative study of aeration and heat distillation in the Kjeldahl method for the estimation of nitrogen, A., ii, 341.
- Falls, Frederick H.** See *William H. Welker*.
- Farbenfabriken vorm. Friedrich Bayer & Co.**, production of alkali metal derivatives of ketones with a view to the preparation of alcohols, A., i, 16.
preparation of γ -methylbutinol and its homologues, A., i, 113.
preparation of derivatives of 2-hydroxy-3-naphthamide, A., i, 145.
preparation of hydroxytriarylmethane-carboxylic acids, A., i, 145, 480.
preparation of hydroxytriphenylmethane-carboxylic acids, A., i, 264.
preparation of unsaturated alcohols, A., i, 305.
preparation of acidyl- α -bromo- α -ethylbutyrylcaramides, A., i, 310.
preparation of quinizarinsulphonic acid, A., i, 318.
preparation of hydroxyanthraquinone-sulphonic acids, A., i, 319.
preparation of sulphonic acids of the anthraquinone series, A., i, 319.
preparation of norcamphor and its derivatives, A., i, 319.
preparation of N -methyl derivatives of organic bases, A., i, 326.
preparation of 4-cyano-2-arylquinolines, A., i, 333.
preparation of mixed carbamides and thiocarbamides of the aromatic series, A., i, 390.
preparation of carbamides and thiocarbamides of the naphthalene series, A., i, 390.
preparation of isopropenylacetylene, A., i, 461.
preparation of esters of alkanimes, A., i, 468.

- Farbenfabriken vorm. Friedrich Bayer & Co.**, preparation of γ -methylbutinol, its homologues and analogues, A., i, 541.
preparation of aldehyde-ammonia, A., i, 546.
preparation of N -alkyl derivatives of organic bases, A., i, 554.
preparation of substituted quinoline-4-carboxylic acids, A., i, 571.
preparation of 5:8-dichloro-1-nitronaphthalene, A., i, 801.
preparation of barbituric acid derivatives, A., i, 843.
- Farbwerke vorm. Meister, Lucius, & Brüning**, preparation of aluminium ethoxide, A., i, 113.
preparation of 6-nitro-3-aminophenol and its methyl ether, A., i, 141.
preparation of sulphomethylbenzophenone- α -carboxylic [sulphomethyl- α -benzoylbenzoic] acids and substitution products, A., i, 145.
preparation of diaminodiphenylcarbamidetetrasulphonic acid, A., i, 206.
preparation of ethyl acetate from acetylaldehyde, A., i, 247.
preparation of a compound of silver glycocholate readily soluble in water, A., i, 252.
preparation of 1:4-dichloronaphthalene, A., i, 256.
preparation of dichloroanthracene hexachloride and dichloroanthracene octachloride, A., i, 313.
preparation of arylamides of 2:3-hydroxynaphthoic acid, A., i, 314.
production of derivatives of 4-hydroxy-carbostyryl, A., i, 333.
preparation of amino-derivatives of 2-phenylquinoline-4-carboxylic acid, A., i, 333, 334.
preparation of hydroxyphenylquinolinedicarboxylic acid, A., i, 334.
preparation of hydroxyphenylquinolinedicarboxylic acid and derivatives thereof, A., i, 334.
preparation of iododihydroxypropane, A., i, 363.
preparation of chloro-derivatives of N -dihydro-1:2:2':1'-anthraquinone-azine and its substitution products, A., i, 423.
preparation of complex arseno-compounds, A., i, 446.
preparation of selenophthaleins and their halogen derivatives, A., i, 560, 728.
preparation of condensation products of the anthraquinone series containing nitrogen (anthraquinoneketomorpholines), A., i, 563.

- Farbwerte vorm.** **Meister, Lucius, & Brüning**, 3-nitro- and 3-amino-carbazolemonosulphonic acids and their derivatives alkylated at the pyrrole nitrogen atom, A., i, 607.
- preparation of sulpho-chlorides of the naphthalene series, A., i, 639.
- preparation of 2:9:10-trichloroanthracene, A., i, 642.
- preparation of 5-nitro-1-alkylamino-anthraquinones, A., i, 657.
- preparation of anthraquinone α -mercaptans and disulphides, A., i, 657.
- preparation of isatin, A., i, 668.
- preparation of soluble derivatives of 2-phenylquinoline-4-carboxylic acid, A., i, 668.
- preparation of anthraquinone, A., i, 732.
- preparation of aluminium alkyl oxides, A., i, 786.
- preparation of acetaldehyde from acetylene, A., i, 791.
- preparation of alkyl esters of 1-aryl-4-diethylaminoethyl-5-pyrazolone-3-carboxylic acid, A., i, 844.
- Fassbinder, Joseph**, the conduction of the electric current in ethyl ether, A., ii, 6.
- Fawcett, George G.** See also **John Rogers**.
- Faucon, A.** See **Gustave Massol**.
- Fauré-Fremiet, E.**, composition and morphology of ovarian lipoids. I. The egg of *Ascaris megalocephala*, A., i, 693.
- Fawcett, George G., Jessie Moore Rahe, George S. Hackett, and John Rogers**, the effects of aqueous extracts of organs on unstriated muscle, A., i, 102.
- Fazi, R. de**, indones. II. Synthesis of 3-phenyl-2-methylindone, A., i, 151.
- derivatives of cinnamic acid: syntheses of β -phenyl- α -ethylcinnamic and β -hydroxy- $\beta\beta$ -diphenyl- α -ethylpropionic acid, A., i, 262.
- new reaction of aldehydes, A., ii, 457.
- Fazi, Remo de.** See **Romolo de Fazi**.
- Fazi, Romolo de**, and **Remo de Fazi**, action of ultraviolet rays on alcoholic fermentation, A., i, 236.
- Feeen, F. van der**, determination of the molecular weight of egg-albumin, A., i, 513.
- osmotic pressure of colloidal hydrated ferric oxide, A., ii, 377.
- Feigl, Johann**, the appearance of haematin in blood after poisoning with chlorates, A., i, 586.
- Feigl, Johann**, [with **A. V. Knack**, and **H. Koopmann**], the blood of participants in an army march with accoutrements. I. The changes and excretion of blood pigment; haemoglobinæmia, haematinæmia, and haemoglobinuria, A., i, 769.
- Feigl, Max E.** See **Heinrich Goldschmidt**.
- Feist, Karl**, estimation of oxychloride and of free hydrochloric acid in solutions of ferric chloride, A., ii, 116.
- Fellenberg, Theodore von**, estimation of sulphuric acid in the presence of phosphoric acid, A., ii, 147.
- estimation of pectin in spices, A., ii, 351.
- colorimetric estimation of cinnamaldehyde in cinnamon, A., ii, 354.
- colorimetric estimation of vanillin in vanilla, A., ii, 355.
- Felsing, William A.** See **Eugene Paul Schoch**.
- Fendler, Georg**, detection of methyl alcohol by Rinck's method, A., ii, 541.
- Fendler, Georg**, and **W. Stüber**, estimation of caffeine in coffee, A., ii, 162.
- Fenger, Frederic**, composition and physiological activity of the pituitary body, II, A., i, 692.
- Fenger, Frederic**. See also **John Harper Long**.
- Ferguson, Allan**, the variation of surface tension with temperature, A., ii, 174.
- Ferguson, Allan A.** See **Alfred Tingle**.
- Ferguson, Alfred L.**, activity and concentration: transport numbers and boundary potentials, A., ii, 289.
- Fernandes, Francis Vito**. See **Rasik Lal Datta**.
- Fernández Ladreda, J. M.** See **Julio de Guzmán Carrancio**.
- Fernbach, Auguste**, mechanism of fermentation, A., i, 587.
- Ferrari, F.**, rapid estimation of iron in presence of organic substances, A., ii, 152.
- Ferry, Edna L.** See **Thomas Burr Osborne**.
- Fichter, Fritz**, boric acid solutions in presence of litmus, A., ii, 247.
- Fichter, Fritz**, and **Emil Brunner**, new products of the electrochemical oxidation of phenol, A., i, 644.
- glucinum nitride, A., ii, 326.
- Fichter, Fritz**, and **Ephraim Elkind**, electrochemical experiments with organic arsenic compounds, A., i, 444.
- Fichter, Fritz**, and **Theodor Lichtenhahn**, electrolysis of the alkali salts of aliphatic sulphocarboxylic acids, A., i, 114.

- Fichter, Fritz**, and *Emile Muller*, the weighting of silk with stannic chloride; a chemical reaction, A., i, 766.
- Fichter, Fritz**, and *Rene Osterwalder*, precipitation of magnesium salts by ammonium carbonate, A., ii, 566.
- Fick, Reinhold**. See *Otto Dimroth*.
- Field, Allan J.**, analysis of chromium oxide, A., ii, 273.
- Filippo, J. D.**, and *W. Adriani*, transformations during the ignition of food-stuffs containing sodium chloride; a reaction between carbon and sodium chloride, A., ii, 393.
- Fine, Morris Seide**, the non-destructibility of uric acid in the human organism, A., i, 189.
- Fine, Morris Seide**. See also *Victor Caryl Myers*.
- Fink, Heinrich**. See *Kurt Hess*.
- Finzi, Cesare**, arsenical acids derived from thiophen. I., A., i, 94. basic properties of the sulphoxides, A., i, 810.
- Finzi, Cesare**, and *Vittoria Furlotti*, arsenical acids derived from thiophen. II., A., i, 95.
- Fisceman, G.**, determination of nitrogen in organic compounds by the microchemical method and by the ordinary method, A., ii, 642. determination of carbon and hydrogen by the microchemical method, A., ii, 645.
- Fisceman, G.** See also *Marussia Bakunin*.
- Fischer, Emil**, preparation of acetyl-bromoglucose, A., i, 373.
- Fischer, Emil**, and *Max Bergmann*, partial acylation of polyhydric alcohols and sugars. III., A., i, 364.
- Fischer, Emil**, and *Walter Breiger*, cyanopropylallylactic acid [α -cyanoo- α -allyl- α -valeric acid], A., i, 11.
- Fischer, Emil**, and *Lukas von Mechel*, formation of active secondary amino-acids from halogeno-acids and primary amines, A., i, 802.
- Fischer, Emil**, and *Charlotte Rund*, partial acylation of the polyhydric alcohols and sugars. II., A., i, 363.
- Fischer, Ernst**. See *Otto Diels*.
- Fischer, Franz**, transformation of coal into soluble substances by means of ozone, A., ii, 562.
- Fischer, Franz**, and *Ernst Baerwind*, the rectifying action of silicon and its position in the thermo-electric series, A., ii, 549.
- Fischer, Franz**, and *Wilhelm Gluud*, the productivity of the extraction of coal by benzene, A., ii, 561. extraction of coal by liquid sulphur dioxide, A., ii, 562.
- Fischer, Franz**, and *Hermann Nigemann*, formation of toluene by the action of anhydrous aluminium chloride on xylene and benzene, A., i, 801.
- Fischer, Franz**, [with *Wilhelm Schneider*, and *Siegfried Hilpert*], formation of liquid hydrocarbons by the action of aluminium chloride on naphthalene under pressure, A., i, 381.
- Fischer, Hans**, urinoporphyrin. I., A., i, 514. bilirubin, A., i, 515. phylloerythrin (bilipurpurin), A., i, 574. urinoporphyrin. II. Cotoporphyrin, A., i, 575. toxicity, sensitising power, and spectroscopic behaviour of the natural porphyrins; degradation of urinoporphyrin to cotoporphyrin, A., i, 775. porphyrins in pathological urine and faeces, A., i, 775.
- Fischer, Hans**, and *G. A. von Kemnitz*, action of some porphyrins on *Paramaecia*, A., i, 585.
- Fischer, Martin Henry**, hydratation and "dissolution" of gelatin, A., i, 90.
- Fischer, Martin Henry**, and *Marian O. Hooker*, the analogy in the behaviour of emulsions and of the fats in the protoplasm, A., i, 693. imitation of mucus formation; A., ii, 557.
- Fischer, Otto**, [with *Constanze Bauer*, *Fr. Hammerschmidt*, and *Wilh. Kern*], some dihydroxynaphthalenes, A., i, 718.
- Fischer, Otto**, and *M. Chur*, electrolytic preparation of 1-methyl-2-pyridone and of some 1-methylquinolones; some derivatives of 1-methyl-2-pyridone, A., i, 741.
- Fischer, Otto**, and *Heinrich Guthmann*, preparation and properties of the α -halogen derivatives of quinoline and methylquinoline. II., A., i, 743.
- Fisher, Harry L.**, new form of absorption bottle for use with calcium chloride or soda lime in the elementary analysis of carbon and hydrogen in organic substances, A., ii, 343.
- Fiske, Cyrus H.**, estimation of urea in urine by the urease method, A., ii, 119.
- Fitzgerald, R.** See *John Alexander McClelland*.
- Fleck, Herman**. See *A. T. Mertes*.

- Fleck, K.** See *Eberhard Rimbach*.
- Fleischer, Karl.** See *Martin Freund*.
- Flier, G. D.** See *Michael A. Rakuzin*.
- Fodor, Andor.** See *Emil Abderhalden*.
- Foelsing, A.**, preparation of borodisalicylic acid, A., i, 314.
- Foerster, Fritz, A. Tenne, F. Herrschel, M. Schade, and W. von Escher**, passivity and retardation phenomena during anodic discharge of halogen ions, and cathodic discharge of the ions of iron metals, A., ii, 408.
- Folin, Otto, and Willly Denis**, relative excretion of phenols by the kidneys and by the intestine, A., i, 773.
- estimation of nitrogen by direct nesslerisation. I. Total nitrogen in urine, A., ii, 573.
- estimation of nitrogen by direct nesslerisation. II. Non-protein nitrogen in blood, A., ii, 574.
- estimation of nitrogen by direct nesslerisation. III. Ammonia in urine, A., ii, 574.
- estimation of nitrogen by direct nesslerisation. IV. Urea in urine, A., ii, 574.
- estimation of nitrogen by direct nesslerisation. V. Urea in blood, A., ii, 575.
- Folkmar, G. O.**, the parenteral injection of sucrose, and the supposed formation of invertin, A., i, 778.
- Folpmers, T.** See *Martinus Willem Beyerinck*.
- Fonrobert, Ewald.** See *Carl Dietrich Harries*.
- Foote, Harry Ward, and Blair Saxton**, effect of freezing on certain inorganic hydrogels, A., ii, 230.
- Ford, William Ebenezer, and W. A. Bradley**, hydrozincite, A., ii, 487.
- margarosanite, a new lead-calcium silicate from Franklin, New Jersey, A., ii, 532.
- Formanek, G.** See *George W. Knight*.
- Fornaini, M.**, determination of the specific electrical conductivity in the testing of potable water, A., ii, 51.
- Fornet, Artur**, estimation of the water-content of substances, A., ii, 534.
- Forsman, W.** See *Ossian Aschan*.
- Fort, M.**, the theory of the acid dye-bath, A., i, 279.
- Fosse, H. W.**, Norwegian oil of turpentine, A., i, 53.
- Foster, Nellis B.**, a toxic substance in the blood of uræmic patients, A., i, 234.
- Foster, Nellis B.** See also *Helen Davis*.
- Foster, William**, action of hydrogen sulphide on arsenic acid, A., ii, 246.
- Foucar, James Louis**, obituary notice of, T., 369.
- Fouque, Gustave**, apparatus for subliming and weighing small quantities of iodine, A., ii, 535.
- Fränkel, Sigmund**, a new condenser, A., ii, 388.
- Fränkel, Sigmund, and Felix Bruckner**, aromatic diglycines, A., i, 383.
- Fränkel, Sigmund, and Josef Rainer**, the presence of cyclic amino-acids in ergot of rye, A., i, 536.
- Fränkel, Walter, and J. Silbermann**, formation of aluminium nitride from alumina, carbon, and nitrogen. II., A., ii, 436.
- Franceschi, Giambattista**, action of hydrogen sulphide on mercuric iodide, A., ii, 530.
- Francesconi, Luigi, and N. Granata**, formula of β -santolinone, A., i, 825.
- Francesconi, Luigi, and E. Sernagiotto**, β -phellandrene, A., i, 272.
- Franchimont, Antoine Paul Nicolas, and J. V. Dubsky**, the reaction of aliphatic imino-derivatives with absolute nitric acid, A., i, 467.
- Francis, Francis Ernest, Francis Henry Geake, and James William Roche**, the determination of the concentration of hydroxyl ions, A., ii, 21.
- Franck, J.**, and *Gustav Hertz*, the relative intensity of gas spectra in the glow discharge through mixtures of gases, A., ii, 461.
- François, Maurice**, detection of glycerides by the magenta-sulphurous acid reagent, A., ii, 155.
- François, Maurice, and E. Luce**, analysis of morphine hydrochloride, standardised morphine hydrochloride solution, and morphine syrup, A., ii, 276.
- Frank, Fritz**, the proteins in caoutchouc and in caoutchouc latex, A., ii, 62.
- Frank, H.** See *J. V. Dubsky*.
- Frankel, Edward M.**, behaviour of purified proteins towards proteolytic enzymes, A., i, 682.
- Frankel, Edward M.** See also *Henry G. Barbour*.
- Franken, Josef.** See *Alfred Coehn*.
- Frankforter, George Bell, and Lillian Cohen**, estimation of acetone in systems of methyl alcohol, water, and potassium fluoride, and equilibria in systems of methyl ethyl ketone, water, and inorganic salts, A., ii, 458.
- Frankforter, George Bell, and E. A. Daniels**, the action of aluminium chloride on the aliphatic ethers, A., i, 7.

- Frankforter, George Bell**, and *W. Kritchevsky*, veratrine and some of its derivatives. II., A., i, 67.
- Frankforter, George Bell**, and *Sterling Temple*, equilibria in the systems of the higher alcohols, water, and salts, A., ii, 92.
- Franz, Hartwig**, and *Heinrich Kahlenberg*, biochemistry of micro-organisms. X. Formation and fermentation of formic acid by *Bacterium coli*, A., i, 780.
- Frary, Francis C.**, and *Harry C. Berman*, formation of magnesium sub-oxide in the electrolytic preparation of magnesium, A., ii, 33.
- Frary, Francis C.**, and *Arthur C. Dennis*, modification of starch by gaseous hydrogen chloride, A., i, 202.
- Frary, Francis C.**, and *Ralph E. Porter*, single potentials in the silver cyanide plating bath, as affected by its composition and concentration, A., ii, 286.
- Frazer, Joseph Christie Whitney**, and *R. T. Myrick*, osmotic pressure of sucrose solutions at 30°, A., ii, 603.
- Frazer, Joseph Christie Whitney**. See also *Benjamin Franklin Lovelace*.
- Fred, Edwin Brown**, and *E. J. Graul*, some factors that influence nitrate formation in acid soils, A., i, 530.
- Fred, Edwin Brown**, and *Edwin Bret Hart*, comparative effects of phosphates and sulphates on soil bacteria, A., i, 104.
- Frederick, Robert C.**, estimation of carbon dioxide in air by Haldane's apparatus, A., ii, 196.
- Frederiksen, F. M.**, electrochemical synthesis of phenylhydroxylamine, A., i, 32.
- Frerichs, Georg**, hardening of fats by the catalytic absorption of hydrogen, A., i, 367.
- a simple sodium lamp for the polarimeter, A., ii, 405.
- Frerichs, Georg**. See also *Heinrich Beckurts*.
- Frerking, H.**, poisonous action of lithium salts on plants, A., i, 875.
- Freund, Hans**, kyrines, A., i, 103.
- Freund, Martin**, and *Karl Fleischer*, berberine. III. Azo-derivatives of dihydroberberine and 1-alkyldihydro-berberines, A., i, 825.
- Freund, Martin**, and *Karl Fleischer*, [with *Max Praetorius*], synthesis of indandiones. V. Constitution of mellophanic and prehnitic acids, A., i, 317.
- Freund, Martin**, and *Edmund Speyer*, preparation of a derivative of thebaine, A., i, 157.
- thebaine. V. Reduction of thebaine and phenyldihydrothebaine, A., i, 738.
- Freundlich, Herbert**, abnormal osmosis, A., ii, 227.
- double refraction of vanadium pentoxide sol, A., ii, 442.
- Freundlich, Herbert**, and *Alf. Bjercke*, kinetics of the catalytic oxidation of phenylthiocarbamide by charcoal, A., ii, 238.
- Freundlich, Herbert**, and *H. Kaempfer*, influence of foreign substances on the adsorption of uranium- X_1 by charcoal, A., ii, 70.
- Freundlich, Herbert**. See also *H. Diesselhorst*.
- Frey, A.** See *Volkmar Kohlschütter*.
- Fridman, V. I.** See *Antony G. Doroshevski*.
- Friedländer, Paul**, hydroxy- and methoxy-derivatives of "thioindigo," A., i, 674.
- Friedländer, Paul**, and *N. Roschdestvensky*, an oxidation product of indigotin, A., i, 80.
- Friedmann, Walter**, conversion of α -methylnaphthalene into $\alpha\beta$ -di- α -naphthylethane and picene, A., i, 382.
- action of sulphur on indene, hydrindene, and cyclopentadiene. I. and II., A., i, 415, 499.
- action of sulphur on *n*-octane under pressure, A., i, 735.
- action of sulphur on 2-methylnaphthalene under pressure, A., i, 736.
- action of sulphur on octylene under pressure, A., i, 832.
- Friedrich, Richard**, recovery of ammonium molybdate from the filtrates obtained in the estimation of phosphorus in steel and iron, A., ii, 490.
- Friend, John Albert Newton**, a cyclic theory of the constitution of metal-ammines and of ferro- and ferricyanides, T., 715; A., i, 637.
- the relative corrodibilities of iron and steel, A., ii, 439.
- Friend, John Albert Newton**. See also (*Sir*) *Robert Hadfield*.
- Friman, Einar**, the absorption and diffusion of high-speed cathode rays (β -rays) in gases and vapours, A., ii, 207.
- the high-frequency spectra (L-series) of the elements lutecium-zinc, A., ii, 589.

- Friman, Einar.** See also *Manne Siegbahn.*
- Frings, Joseph,** the arc- and spark-spectrum of silver in international normals, A., ii, 65.
- Fritsch, R.** See *Paul Pfeiffer.*
- Fry, Harry Shipley,** some applications of the electronic conception of positive and negative valencies. VI. The existence and properties of free radicles, A., i, 28.
- interpretations of some stereochemical problems in terms of the electronic conception of positive and negative valencies. VI. Further evidence for the electronic formula of benzene and the substitution rule. VII. Action of sodium methoxide on the products of nitration of *o*, *p*, and *m*-chlorotoluenes. VIII. Further evidence for the electronic tautomerism of benzene derivatives, A., i, 598.
- Fry, Harry Shipley, and Joseph L. Donnelly,** reactions of non-aqueous solvents. I. The action of chromyl chloride on the phosphorus trihaloids, A., ii, 626.
- Fühner, Hermann,** the pharmacological action of hypophysin, A., i, 778.
- Fürst, Rose.** See *Oskar Baudisch.*
- Fuller, Everett W.** See *Sergius Morgulis.*
- Fuller, T. S.,** thermo-electromotive force of certain iron alloys, A., ii, 10.
- Funk, Casimir,** nature of the disease due to the exclusive diet of oats in guinea-pigs and rabbits, A., i, 696.
- dialysis of trypsin and the proteo-clastic action of the protein cleavage products, A., i, 767.
- Funk, Casimir, William G. Lyle, and Donald McCaskey,** [with *Joseph Caspe, and Joseph Poklop*], nutritive value of yeast, polished rice, and white bread as determined by experiments on man, A., i, 862.
- Funk, Casimir, and Archibald Bruce Macallum,** growth. II. The probable nature of the substance promoting growth in young animals, A., i, 184.
- growth. III. Comparative value of lard and butter fat in growth, A., i, 861.
- growth. IV. Action of yeast fractions on the growth of rats, A., i, 861.
- Funk, Casimir, and Joseph Poklop,** certain dietary conditions bearing on the problem of growth in rats, A., i, 861.
- Furlotti, Vittoria.** See *Cesare Finzi.*
- Furman, N. Howell.** See *LeRoy Wiley McCay.*
- G.**
- Gabriel, Siegmund,** some simple thiazole bases, A., i, 668.
- isopropylamine*, A., i, 794.
- some ortho-derivatives of cinnamic acid, A., i, 818.
- Gadamer, Johannes,** [and, in part, *Fritz Kuntze, and R. Kondo*], Hofmann's degradation of alkaloids of the phenanthrene (*apomorphine*) series, A., i, 737.
- Gadamer, Johannes,** [with *Fritz Kuntze, R. Kondo, and Schulemann*], mercuric acetate as an oxidising agent in alkaloidal chemistry, A., i, 738.
- Gad Andresen, K. L.,** a new method for estimating carbon monoxide in the blood, A., ii, 447.
- Gallenkamp, W.,** action of light on mixtures of potassium ferrocyanide and *p*-nitrosodimethylaniline, A., ii, 207.
- Gangloff, Wilmer C.** See *William E. Henderson.*
- Gann, John A.,** the velocity of coagulation of aluminium hydroxide solution, A., ii, 382.
- Gardner, Arthur Duncan.** See *Georges Dreyer.*
- Garner, William Edward, and Daniel Tyrer,** preparation of diethylamine, T., 174; A., i, 251.
- Garrett, Charles Scott,** the infra-red and ultra-violet absorption of sulphur dioxide and their relation to the infra-red spectra of oxygen and hydrogen sulphide, A., ii, 362.
- Garrett, Charles Scott.** See also *Edward Charles Cyril Baly.*
- Garrey, Walter Eugene,** the resistance of fresh-water fish to changes of osmotic and chemical conditions, A., i, 232.
- Gassmann, Theodor,** detection of selenium in bones and teeth, A., i, 772.
- Gast, Wilhelmine.** See *Hans von Halban.*
- Gastaldi, Carlo, and F. Cherchi,** condensation of acetophenone by means of sodium ethoxide, I., A., i, 31.
- Gaté, J.** See *A. Ch. Hollande.*
- Gattermann, Ludwig, and R. Ebert,** azoimido- and stereoisomeric azo- and hydrazo-derivatives of anthraquinone, A., i, 857.
- Gattermann, Ludwig, and Aladar Skita,** [with *L. Bühlér*], a synthesis of pyridine derivatives, A., i, 419.

- Gaubert, Paul.** the growth of crystals, A., ii, 229.
 [the influence of imbibed substances on the form of crystals of ammonium chloride], A., ii, 300.
 a crystalline modification of sulphur occurring in spherolites with helicoidal winding, A., ii, 314.
 the crystalline liquids obtained by evaporation of a solution, A., ii, 604.
- Gaule, Alice.** See *Hermann Staudinger*.
- Gautier, Armand,** and *Paul Clausmann*, fluorine in the vegetable kingdom, A., i, 237.
- Gawalowski, A.** purification of filter paper by hydrofluoric acid, A., ii, 44.
 detection of iron in filter paper which has been treated with hydrofluoric acid, A., ii, 116.
- Gay, L.** application of the idea of expansibility tension to the theoretical study of chemical equilibria, A., ii, 91.
 theoretical study of chemical equilibrium, A., ii, 231.
 the conception of the pressure of expansion, A., ii, 550.
 combined expansibility product, A., ii, 600.
- Gazzabin, V.** See *Bartolo Lino Vanzetti*.
- Geake, Francis Henry.** See *Francis Ernest Francis*.
- Gehe & Co.** preparation of compounds of urethanes and diurethanes with metallic bromides, A., i, 125.
- Geiger, George Augustus.** See *Carl Oscar Johns*, and *Arno Viehoever*.
- Geilmann, W.** See *Carl Mannich*.
- George, H. Trevelyan.** See *Richard Smith Willows*.
- Georgievics, Georg [Cornelius Theodor] von**, simultaneous adsorption by two adsorbing media, A., ii, 417.
- Gephart, Frank C., Eugene F. Du Bois,** and *Graham Lusk*, clinical calorimetry. XVIII. The number of places of significant figures in the data of metabolism experiments, A., i, 860.
- Gérard.** See *William Echsnar de Coninck*.
- Gerhardt, Mathilde.** See *Otto Wallach*.
- Gerike, Kurt**, vapour pressure of gelatin-water mixtures, A., ii, 18.
- Germann, F. E. E.** See *Philippe Auguste Guye*.
- Germann, Hildegarde C.** partition of phosphorus in thymus-nucleic acid, A., i, 575.
- Germann, Hildegarde C.** See also *Walter Jones*.
- Gerretsen, F. C.** the oxidising power of soil in connexion with aeration, A., i, 591.
- Gerum, Josef.** See *Carl Paal*.
- Gerzowitsch, S.** permeability of cells. VI. New method for investigating the permeability of the cells of various regions of the kidney by the aid of dyes, A., i, 450.
- Gesellschaft für Chemische Industrie in Basel**, manufacture of products containing sodium pyrophosphate and active oxygen, A., ii, 616.
- Getman, Frederick Hutton**, the lead electrode, A., ii, 287.
- Gettler, A. O.**, and *Willis Baker*, chemical and physical analysis of blood in thirty normal cases, A., i, 576.
- Geyer, C.** See *Aba von Sztankay*.
- Ghazarian, M.** See *Siegmond Reich*.
- Ghose, T. P.** See *Puran Singh*.
- Ghosh, Brojendra Nath**, a synthesis of flavones, T., 105 ; A., i, 281.
 influence of constitution on the basic property of oxygen. I., A., i, 63.
- Ghosh, Brojendra Nath.** See also *Sosale Garalapury Sastry*.
- Ghosh, Jnanendra Chandra**, relative affinity of metals in non-aqueous solutions and their reactivity in insulating media, A., ii, 92.
- Gibbs, Ivan Richard**, obituary notice of, T., 370.
- Gibbs, W. E.** the corrosion of a solid solution — 70 : 30 brass, A., ii, 434.
- Gifford, Edgar Cranborne.** See *Eric Doddrell Evans*.
- Gigli, Torquato**, innovations in the analysis of potable waters, A., ii, 340.
- Gilchrist, Elizabeth.** See *Charles Robertshaw Marshall*.
- Gille, Arthur**, the viscosity coefficients of mixtures of helium and hydrogen, A., ii, 86.
- Gillespie, L. J.**, reaction of soil and measurements of hydrogen-ion concentration, A., i, 303.
- Gilman, H.** See *Roger Adams*.
- Gilmour, Robert**, qualitative analysis of the iron group in the presence of phosphates, A., ii, 151.
- Giolitto, Federico**, and *S. Zublena*, the behaviour of slag enclosures in acid steel, A., ii, 37.
- Giordani, F.** See *Marussia Bakunin*.
- Giua, Michele**, aromatic nitro-derivatives. V. Reactivity of the nitro-group in aromatic compounds, A., i, 205.
 additive molecular compounds in organic chemistry, A., i, 266.

- Giua, Michele**, unsaturated compounds in organic chemistry. I. Behaviour of phenyl cinnamylidenemethyl ketone, A., i, 490.
formation of 1-phenyl-4-benzyl-3-methylpyrazolone, A., i, 608.
- Given, Guy**. See *Paul Ehrenberg*.
- Givens, Maurice Hope**, and *Andrew Hunter*, the fate of ingested sodium nucleate in the human subject, A., i, 183.
- Gleditsch, (Mlle.) Ellen**, the life of radium, A., ii, 168.
- Gloth, Hans Waldemar**. See *Alfred Heiduschka*.
- Gluud, Wilhelm**, preparation of *o*-aldehydophenylglycine, A., i, 266.
preparation of condensation products of *o*-aldehydophenylglycineoxime and its derivatives substituted in the carboxyl group, A., i, 266.
preparation of indole, A., i, 288.
- Gluud, Wilhelm**. See also *Franz Fischer*.
- Godet, Ch.** See *W. I. Baragiola*.
- Görbitz, Carl**. See *Heinrich Goldschmidt*.
- Goerens, Franz**. See *Rudolf Ruer*.
- Goes, Christian**. See *Carl Paal*.
- Göttelmann, E.** See *Gustav Schultz*.
- Göttler, Maximilian**, *s*-diantipyrylcarbamide and its physiological properties, A., i, 83.
- Gola, G.**, presence in plants of haematoïd compounds of iron. II., A., i, 108.
- Goldberger, Isidor**, benzaldehyde-o-sulphonic acid, A., i, 604.
4:4'-azo- and 4:4'-azoxy-phthalic acids, A., i, 609.
- Goldenzweig**. See *Hugo Simonis*.
- Goldschmidt, Heinrich**, alcoholysis of salts, A., ii, 424.
- Goldschmidt, Heinrich**, [with *Max E. Feigl, Carl Görbitz, Haakon Hougen, Kristian Pahle, Jens Schjerve, and Olaf Udby*], electrical conductivity of acids in absolute and aqueous alcohol. II., A., ii, 210.
- Goldschmidt, Heinrich**, and *Anton Hougen*, physico-chemical experiments on the additive compounds of thiocarbamides and alkyl iodides, A., ii, 558.
- Goldstein, J.** See *Hermann Staudinger*.
- Golodetz, L.**, determination of the melting-point of fats and waxes, A., ii, 354.
- Gomberg, Moses**, and *R. L. Jickling*, triphenylmethyl. XXV. Preparation of *p*-hydroxytriphenylcarbinol and attempts to isolate the corresponding triarylmethyl, A., i, 29.
- Gomberg, Moses**, and *C. S. Schoepfie*, triphenylmethyl. XXIV. The additive compounds of triphenylmethyl and some saturated hydrocarbons, A., i, 28.
- Gomberg, Moses**, and *N. E. van Stone*, triphenylmethyl. XXVI. Tautomerism of triarylcabinols, A., i, 639.
- Gómez, L.**, isoamyl xanthates, A., i, 305.
- Gonnermann, Max**, sugar beet and potato tyrosinase, A., i, 359.
- González, Adolfo**, the chloralide of cholesterol, A., i, 649.
- González, Adolfo**. See also *Antonio Madinaveitia*.
- Goodson, Alice**. See *Wilhelm Traube*.
- Goodson, H. E.** See (*Sir*) *Norman Lockyer*.
- Goost, Th.** See *Edgar Wedekind*.
- Gordon, Newell T.** See *Donald Pritchard Smith*.
- Gore, Herbert C.**, occurrence of sucrose in grapes of American origin, A., i, 458.
- Gorino, Constantino**, further investigations on the proteolytic activity of lactic organisms. I. Influence of the temperature, A., i, 105.
- Goris, A.**, rôle of glucosides in plants, A., i, 782.
- Gortner, Ross Aiken**, origin of the humin formed by the acid hydrolysis of proteins. II. Hydrolysis in the presence of carbohydrates and of aldehydes, A., i, 681.
rapid method for estimating calcium oxide in peat soils, A., ii, 449.
- Gortner, Ross Aiken**, and *William M. Shaw*, does vanadium interfere with the estimation of phosphorus in soils when the phosphorus is weighed as magnesium pyrophosphate? A., ii, 644.
- Gothe, F.**, the enzymes of honey, A., ii, 499.
properties of honey diastase, A., ii, 500.
- Gounder, A.** See *Georgi Korschun*.
- Gouy, G.**, the differences of potential at the contact of two electrolytes, A., ii, 409.
the electrocapillary function, A., ii, 550.
- Graaff, Willem Cornelis de**, ammonia and amino-acids in urine, A., ii, 119.
- Graaff, Willem Cornelis de**, and *J. E. van der Zande*, the urease of soja beans, A., i, 358.
ammonia and amino-acids in urine, A., ii, 654.

- Graefe, H.**, analysis of copper-aluminium-zinc alloys, A., ii, 150.
Graffenreid, A. von. See *Emil Dittler*.
Graham, George, variations in the blood sugar in health, A., i, 613.
Graham, Helen Tredway. See *Julius Stieglitz*.
Gramont, (Comte) Arnaud de, spectroscopic control of material used in atomic weight determinations, A., ii, 589.
Granata, N. See *Luigi Francesconi*.
Grant, A. J., and *Charles James*, some new rare earth compounds, A., ii, 101.
Grant, A. J. See also *Charles James*.
Grassi, Ugo, Sabatier's catalytic actions, A., ii, 425.
Graul, E. J. See *Edwin Brown Fred*.
Graziani, Ferdinando, anhydrides of tyrosine, A., i, 481.
Graziano, E., phenyl propyl ketone, A., i, 210.
Green, Helen S. See *Anna E. Richardson*.
Greenish, Henry G., microscopical methods, with special reference to the examination of drugs, A., ii, 497.
Greenwald, Isidor, fate of α -amino-*n*-hexoic acid in the phloridzinised dog, A., i, 528.
 tetany of parathyroidectomised dogs, A., i, 585.
 nature of the acid-soluble phosphorus of serum, A., i, 687.
 the use of trichloroacetic acid as a protein precipitant, A., ii, 62.
Greenwood, J. N. See *Charles Alyrcd Edwards*.
Grenfell, D. S. See *O. L. Kowalke*.
Griesshammer, W. See *Reinhold von Walther*.
Griffin, Edward G., and *John Maurice Nelson*, influence of certain substances on the activity of invertase, A., i, 439.
Griffin, Edward G. See also *John Maurice Nelson*.
Griffith, Robert Owen, and *William Cudmore McCullagh Lewis*, studies in catalysis. IV. Stoicheiometric and catalytic effects due to the progressive displacement of one reactant by another in the "acid" hydrolysis of methyl acetate, T., 67; A., ii, 135.
Griffiths, A., a recalculation of some work on diffusion, A., ii, 418.
Griffiths, A., J. M. Dickson, and *Constance Harrison Griffiths*, determination of the coefficient of diffusion of potassium chloride by an analytical method, A., ii, 88.
Griffiths, Constance Harrison, a new method of determining ionic velocities, A., ii, 368.
Griffiths, Constance Harrison. See also *A. Griffiths*.
Griffiths, Walter Edward Lambourne. See *Erie Doddrell Evans*.
Grignard, Victor, [preparation of mercurated alcohols of the aromatic series], A., i, 683.
Grignard, Victor, and *Arthur Abelmann*, a method of preparing mercurised aromatic alcohols, A., i, 228.
 a new method for the simultaneous estimation of carbon, hydrogen, and mercury in organo-mercuric compounds, A., ii, 149.
Grignard, Victor, *E. Bellet*, and *Charles Courtot*, action of cyanogen and its haloids on mixed organo-magnesium derivatives; new methods of synthesis of nitriles and ketones; new method of introduction of a halogen into an organic molecule, A., i, 487.
Grimmer, Walther, new way of carrying out the peroxydase reaction in milk, A., ii, 403.
Grimmer, Walther. See also *W. Ellenberger*.
Grinbaum, A. M. See *Alexander N. Sachanov*.
Grindley, Harry Sands, and *H. C. Eckstein*, non-protein nitrogenous constituents of feeding stuffs, A., i, 623.
Grindley, Harry Sands, and *M. E. Slater*, [with *H. C. Eckstein*, and *J. C. Ross*], the estimation of the amino-acids of feeding stuffs by the van Slyke method. II., A., ii, 119.
Grindley, Harry Sands. See also *H. H. Mitchell*.
Groll, J. Temminck, presence of urease in soja beans, A., i, 358.
 preparation of colloidal gold solutions, A., ii, 390.
Grose, Merritt Roy. See *Gregory Paul Baxter*.
Grossfeld, J., modification of the so-called Mohler's reaction for benzoic acid, A., ii, 158.
Grossfeld, J. See also *K. Baumann*.
Grossmann, Charlotte. See *Wilhelm Strecker*.
Grossmann, Emil, the action of the three isomeric aminophenols on *a*-naphthaquinone. A., i, 153.
Grozea, Emil, apparatus for the transference of gases used in Hesse's method for the estimation of atmospheric carbon dioxide, A., ii, 49.

- Grozea, Emil.** See also *Stefan Minovici*.
Grube, Otto. See *Adolf Heydweiller*.
Gruber, Josef. See *Anton Skrabal*.
Grün, Adolf, [with *I. Husmann*, and *H. Nossowitsch*], some complex compounds of the sugar alcohols, A., i, 593.
Grün, Adolf, and *Jos. Janko*, hydroxy-acids: transformation of erucic acid into hydroxybehenic acid, A., i, 789.
Grün, Adolf, and *H. Nossowitsch*, complex borates, A., i, 787.
Grün, Adolf, and *H. Schönfeld*, glycerides of linoleic acid, A., i, 218.
Grüttner, Gerhard, and *Erich Krause*, new heterocyclic systems. II. Pyrrolidine analogues, in which the nitrogen atom is replaced by phosphorus, arsenic, or antimony, A., i, 443.
 organo-lead compounds. I. Mixed lead tetra-alkyls of the type $R^1_2PbR^2_2$, A., i, 684.
 organo-lead compounds. II. Simple lead tetra-alkyls and their halogen substitution products, A., i, 799.
 organo-lead compounds. III. Mixed lead tetra-alkyls of the type $PbR_2R'_2$, A., i, 800.
Grüttner, Gerhard, and *Maximilian Wiernik* new heterocyclic systems I. Analogues of piperidine in which the nitrogen atom is replaced by phosphorus, arsenic, antimony, or bismuth, A., i, 92.
 organic antimony compounds. I. The action of antimony trichloride on triphenylstibine, A., i, 96.
 organic antimony compounds. II. Preparation of mixed aryl-alkyl stibins, A., i, 98.
Gsell, Hans, spectroscopic identification of phenols, A., ii, 584.
Guareschi, Cil-o, singular properties of soda-lime. I., II., III., and IV., A., ii, 324, 562.
 mixtures of the alkaline earths with alkali hydroxides. I., A., ii, 325.
 action of hydrogen sulphide on mixtures of the alkaline earths with the alkalis and with oxides of the heavy metals. II., A., ii, 529.
Güntelberg, E., determination of the affinity of the reaction: $KC_3O_3 + NaI = KI + NaClO_3$, A., ii, 15.
Guggenheim, Markus, new method for testing the adsorptive power of animal charcoal and other adsorption agents, A., ii, 447.
Guggenheim, Markus, and *Wilhelm Löffler*, the biological method of detection of the proteinogenic amines in extracts of organs and tissue fluids, A., i, 300.
 the fate of the proteinogenic amines in the animal body, A., i, 301.
 the presence and fate of choline in the animal body; a method for the detection of small amounts of choline, A., i, 526.
Guglialmelli, Luis, arsenotungstic acid as a reagent for phenols, A., ii, 584.
 arsenotungstomolybdcic acid as a reagent for phenols, A., ii, 585.
 a new and delicate test for dimethylaminophenylidimethylisopyrazolone (pyramidine), A., ii, 587.
Guillaumin, Ch., identification of water which has been treated with alkaline hypochlorites, A., ii, 487.
Guittean, L., action of sulphur on barium hydroxide in the presence of water, A., ii, 619.
Gurewitsch, H. See *Oskar Baudisch*.
Gury, E. See *Friedrich Schaffer*.
Gustafson, Bror, adsorption by charcoal in alcoholic solutions A., ii, 416.
Gustavson, R. G. See *W. D. Engle*.
Gutbier, Alexander, and *J. Huber*, protective colloids; the seed of *Plantago psyllium*, L., as protective colloid, A., i, 556.
Gutbier, Alexander, *J. Huber*, and *J. Kräuter*, protective colloids: *Cetraria islandica* as protective colloid. III. Colloidal palladium, A., ii, 303.
Gutbier, Alexander, *J. Huber*, and *E. Kuhn*, protective colloids: *Cetraria islandica* as protective colloid. II. Colloidal gold, A., ii, 303.
 protective colloids. IV. Linseed as protective colloid, A., ii, 476.
 protective colloids. IV. Linseed as protective colloid. 2. Colloidal gold, A., ii, 522.
Gutbier, Alexander, *A. Irion*, and *E. Sauer*, protective colloids: *Cetraria islandica* as protective colloid. I. Colloido-chemical investigation of the extract from Iceland moss, A., ii 231.
Guthmann, Heinrich. See *Otto Fischer*.
Gutmann, August, action of mercuric cyanide on salts and ester-salts of thiolsulphuric acid, A., i, 637.
Guye, Philippe Auguste, errors affecting the determination of atomic weights. I. The weighings, A., ii, 385.
 errors affecting the determination of atomic weights. III. Various methods in use for reducing weight to the vacuum standard, A., ii, 386.

- Guye, Philippe Auguste**, and *H. E. E. Germann*, errors affecting determinations of atomic weights. V. Gaseous impurities contained in silver with reference to its use as an auxiliary atomic weight standard, A., ii, 432.
errors affecting the determinations of atomic weights IV. Micro-analytical method for the study of gases; application to the analysis of traces of air, A., ii, 445.
- Guye, Philippe Auguste**. See also *Theodore Renard*.
- Guzmán Carrancio, Julio de**, and *J. Alemany*, electro-analysis of silver without platinum electrodes, A., ii, 114.
- Guzmán Carrancio, Julio de**, and *T. Batuecas*, electro-analysis of copper without platinum electrodes, A., ii, 199.
- Guzmán Carrancio, Julio de**, and *J. M. Fernández Ladreda*, a copper cathode and iron anode in the electro-analysis of brass, A., ii, 150.
- Guzmán Carrancio, Julio de**, and *Emilio Jimeno Gil*, electro-analysis of cobalt without platinum electrodes, A., ii, 494.
- H.**
- Haar, Anne Wilhelm van der**, chemical nature of the oxidising ferments, A., i, 518.
a method for the estimation of free and combined galactose, A., ii, 652.
- Haas, A. R.**, permeability of living cells to acids and alkalis, A., i, 873.
activity of plant cells as shown by natural indicators, A., i, 873.
effect of the addition of alkali to seawater on the hydrogen-ion concentration, A., ii, 568.
- Haas, Georg**, the formation of glycine in the animal body, A., i, 772.
- Hackett, George S.** See *George G. Fawcett*, and *John Rogers*.
- Hadfield, (Sir) Robert**, the transformations of pure iron, A., ii, 438.
the corrosion of steel alloys, A., ii, 438.
- Hadfield, (Sir) Robert**, and *John Albert Newton Friend*, the influence of carbon and manganese on the corrosion of steel, A., ii, 622.
- Hadley, Sidney E.** See *Treat Baldwin Johnson*.
- Haessler, F. H.** See *John Howland*.
- Haga, Tamemasa**, obituary notice of, 380.
- Hagemann, G. A.**, volume and heat, A., ii, 15.
- Hager, F.** See *Walter Madelung*.
- Hager, G.**, and *J. Kern*, influence of varying quantities of water on the decomposition of nitroline and the formation of dicyanodiamide, A., i, 548.
estimation of potassium in potassium salts by the perchlorate method, A., ii, 114.
- estimation of dicyanodiamide in calcium cyanamide by Caro's method, A., ii, 587.
- Hahn, Dorothy A.**, reactions of some carboxyl derivatives of trimethylene [cyclopropane], A., i, 649.
- Hahn, Dorothy A.**, and *Mary E. Holmes*, the valency theory of J. Stark from a chemical point of view, A., ii, 96.
- Hahn, Friedrich L.**, a new method for the detection and qualitative separation of arsenic, antimony, and tin, A., ii, 266.
- Haigh, W. D.**, estimation of hygroscopic moisture in soils, A., ii, 46.
- Haines, W. B.**, ionic mobilities of hydrogen, A., ii, 283.
- Hake, Wilson**, the action of chlorine on the blood, A., i, 176.
- Halban, Hans von**, and *Wilhelmine Gast*, kinetics of ether formation, A., ii, 557.
- Halberstadt, W.** See *Paul Pfeiffer*.
- Hale, William Jay**, and *William V. Hoyt*, the constitution of the nitropyrrole-2-carboxylic acids, A., i, 71.
constitution of the three symmetrical dinitropyrocyclics, A., i, 508.
- Hall, R. E.** See *William Draper Harkins*.
- Hallimond, W. F.**, crystallography and dehydration of torbernite, A., ii, 258.
- Halverson, John O.**, and *Olaf Bergeim*, estimation of calcium in blood, A., ii, 270.
- Hamburger, Hartog Jakob**, biology of phagocytes; influence of hydrogen peroxide on phagocytosis, A., i, 100.
the influence of osmotic pressure on the volume of red blood-corpuscles and the problem of permeability, A., i, 100.
the estimation of small quantities of potassium, A., ii, 50, 448.
the centrifugal machine in the chemical laboratory, A., ii, 392.
quantitative estimation of slight quantities of SO_4 . II. Contribution to micro-volumetric analysis, A., ii, 641.
- Hamburger, L.**, hydrogenation of oils, A., i, 248.

- Hamburger, L.** See also *G. Holst*.
Hamburger, Toni. See *Heinrich Biltz*.
Hamilton, (Miss) Ellice Ettie Peden, and *Robert Robinson*, an extension of the theory of addition to conjugated unsaturated systems. I. Constitution of the salts of 1-benzylidene-2-methyl-1:2:3:4-tetrahydroisoquinoline, T., 1029; A., i, 836.
Hammermann, new form of gas burette, A., ii, 146.
Hammerschmidt, Fr. See *Otto Fischer*.
Hammett, Frederick S., effect on nitrogen partition of substituting alcohol for sucrose in an otherwise fixed diet, A., i, 689.
Hamonet, (l'Abbe) Jules Leandre, true homologues of glycerol; heptanetriol, A., i, 246.
Hanaman, Franz, cerium alloys. I. The constitution of cerium-copper alloys, A., ii, 35.
Hansen, L. W. See *Jacob Bøeseken*.
Hanson, D. See *John L. Haughton*.
Hantzsch, Arthur [Rudolf], the keto-enol equilibria of oxalacetic acid, its esters and salts, A., i, 12. the optical anomaly of fluorenone- and *allochrysoketone*-carboxylic acids, A., i, 398. the chromoisomerism of the salts of phenolaldehydes, A., i, 403. meri-quinonoid salts, A., i, 431. chromoisomerism of the acridonium salts, A., i, 835. [methylphenazonium iodides], A., i, 838. Baly's experimental observations relating to the "force field theory," A., ii, 3.
Hantzsch, Arthur, [with *Julius Retinger*], the supposed isomerism of formanilide, A., i, 382.
Hantzsch, Arthur, and *A. Schwiete*, the isomerism of the benzil-*o*-carboxylic acids and their derivatives, A., i, 399.
Hanzlik, Paul J. See *Russell J. Collins*, and *T. W. Thoburn*.
Harding, T. S. See *Claude S. Hudson*.
Harding, Victor John, the ninhydrin reaction, A., ii, 61.
Harding, Victor John, and *Reginald M. MacLean*, comparison of the Sörensen, van Slyke, and colorimetric methods for the estimation of protein hydrolysis, A., i, 346. colorimetric method for the estimation of amino-acid α -nitrogen. II. Application to the hydrolysis of proteins by pancreatic enzymes, A., i, 449.
Harding, Victor John, and *Reginald M. MacLean*, ninhydrin reaction with amines and amides, A., ii, 459.
Harding, Victor John, and *Francis H. S. Warneford*, ninhydrin reaction with amino-acids and ammonium salts, A., ii, 459.
Hargreaves, George Watson, the essential oil of *Cinnamomum oliveri* (Bail.) or Brisbane sassafras, T., 751; A., i, 659.
Harkins, William Draper, and *F. E. Brown*, simple apparatus for the accurate and easy determination of surface tension, with a metal thermoregulator for the quick adjustment of temperature, A., ii, 224.
Harkins, William Draper, and *R. E. Hall*, atomic structure. V. Periodic system and the properties of the elements, A., ii, 241.
Harkins, William Draper, and *E. C. Humphrey*, surface tension. I. Drop weight method for the determination of surface tension, A., ii, 222. surface tension. II. Apparatus for the determination of the surface tension at the interface between two liquids, A., ii, 223.
surface tension. III. Surface tension at the interface between two liquids and the effect of acids, salts, and bases on the interfacial tension, A., ii, 223.
Harlow, Frederick J., and *Richard Smith Willows*, a simple method of deriving the Gibbs adsorption formula, A., ii, 87.
Harned, Herbert S., hydrogen- and hydroxyl-ion activities of solutions of hydrochloric acid, sodium and potassium hydroxides in the presence of neutral salts, A., ii, 8. the hydrogen- and chlorine-ion activities of solutions of potassium chloride in 0.1 molecular hydrochloric acid, A., ii, 597.
Harries, Carl Dietrich, action of ozone on organic compounds. IV., A., i, 312. the vulcanisation of caoutchouc and the possibility of its regeneration from "vulcanisates." I., A., i, 659.
Harries, Carl Dietrich, and *Hans Adam*, oxidation of phenols with unsaturated side chains by means of ozone, A., i, 646. oxidation of limonene by ozone, A., i, 658.

- Harries, Carl Dietrich**, and **Ewald Fonrobert**, the vulcanisation of caoutchouc and the possibility of its regeneration from "vulcanisates." II., A., i, 733.
- Harris, Charles H.**, and **Willard D. Thrams**, fruit of *Vaccinium corymbosum* [huckleberry], A., i, 784.
- Harris, David Fraser**, and **Henry Jermain Maude Creighton**, the time required by reduction of oxyhaemoglobin *in vivo*, A., i, 176.
- Harris, Gorham W.** See **Theodore William Richards**.
- Harris, Joseph B.** See **George P. Meade**.
- Harrison, John Malthouse**. See **Frederick Daniel Chattaway**.
- Harrison, William**, some properties of starch considered from a colloid-chemical point of view, A., i, 251.
- Harrison, W. H.**, and **P. A. Subramania Aiyer**, the gases of swamp rice soils. III. A hydrogen-oxidising bacterium from these soils, A., i, 619.
- Hart, Edwin Bret**, **George C. Humphrey**, and **A. A. Schaal**, relation of the quality of proteins to milk production, A., i, 771.
- Hart, Edwin Bret**, **W. S. Miller**, and **Elmer Verner McCollum**, nutritive deficiencies of wheat and grain mixtures and the pathological conditions produced in swine by their use, A., i, 581.
- Hart, Edwin Bret**. See also **Edwin Brown Fred.**
- Hart, Merrill C.**, algerita root, A., i, 620.
- Hart, Merrill C.** See also **Frederick William Heyl**.
- Hartley, Ermal George Justinian**, the reaction between methyl iodide and some metallic cyanides, T., 1296. some reactions produced by mercuric iodide, T., 1302.
- Hartley, Ermal George Justinian**. See also (*the Earl of*) **Berkeley**.
- Hartley, Percival**. See **Henry Hallett Dale**.
- Hartman, M. L.**, qualitative and quantitative analysis of tungsten, A., ii, 494. reduction test for tungsten, A., ii, 495.
- Hartmann, B. G.**, **J. R. Eoff**, and **M. J. Ingle**, estimation of tartaric acid, A., ii, 400.
- Hartmann, Miner Louis**. See **Gregory Paul Baxter**.
- Hartung, E. J.**, a new method for determining the specific heat of liquids, A., ii, 80.
- Hartwagner, F.** See **Ludwig Vanino**.
- Hartwell, Burt Laws**. See **F. R. Pember**.
- Hariwich, Frank**. See **Richard Wolfenstein**.
- Haselhoff, Emil**, influence of potassium ferrocyanide on the growth of plants, A., i, 196.
- Haskins, Howard D.**, uric acid solvent power of normal urine, A., i, 696.
- Hasselbalch, Karl Albert**, ammonia as a physiological regulator of neutrality, A., i, 519. the "reduced" and the "regulated" hydrogen number of the blood, A., i, 519.
- Hasselbalch, Karl Albert**, and **J. Lindhard**, the experimental physiology of high altitudes, A., i, 519.
- Hasselblatt, Meinhard**, the melting point of stressed crystals, A., ii, 299.
- Hasselbring, Heinrich**, and **Lon A. Hawkins**, transformation of carbohydrates in sweet potatoes, A., i, 623.
- Hasselt, J. F. B. van**, reduction of bixin, A., i, 495.
- Hasselt, J. F. B. van**. See also **Inne Jan Rinke**.
- Hassler, John W.** See **Leonard Wickenden**.
- Hatfield, William Herbert**, phosphorus in iron and steel, A., ii, 142.
- Hatos, Géza**. See **Paul Schick**.
- Hatschek, Emil**, the viscosity of colloidal solutions, A., ii, 420. the viscosity and hydration of colloidal solutions, A., ii, 602.
- Haughton, John L.**, and **D. Hanson**, a thermostat for moderate and high temperatures, A., ii, 125.
- Hausmann, J.**, preparation of sodium oxindole-*p*-sulphonate, A., i, 326.
- Hausmann, Walther**, and **Ernst Mayerhofer**, the inhibitory action of the light of the quartz lamp on the coagulation of blood, A., i, 297.
- Haw, Arthur B.** See **Philip Adolph Kober**.
- Haward, William Arthur**, and **Tatsuro Otagawa**, the propagation of flame in mixtures of hydrogen and air; the "uniform movement," T., 83; A., ii, 133.
- Hawk, Philip Bouvier**. See **C. A. Smith**.
- Hawkins, Charles Francis**. See **Gregory Paul Baxter**.
- Hawkins, Lon A.** See **Heinrich Hasselbring**.
- Haworth, Walter Norman**, and **James Colquhoun Irvine**, preparation of hypochlorous acid, A., ii, 613.

- Haworth, Walter Norman**, and **James Law**, the constitution of the disaccharides. I. The structure of sucrose, T., 1814.
- Hecht, Hans**. See *Wilhelm Prandtl*.
- Hecht, Leopold**. See *Otto Ruff*.
- Hedenburg, O. F.** See *Harry Gideon Wells*.
- Hedvall, J. Arvid**, the formation of isomorphous mixed crystals between cobalt oxide and manganous oxide, and between cobalt oxide and nickel oxide, A., ii, 255.
- the reactions between cobaltous oxide and other metallic oxides at high temperatures, A., ii, 331.
- Heider, K.** See *Julius von Braun*.
- Heiduschka, Alfred**, and **Hans Waldemar Gloth**, sitosterol and stigmasterol, A., i, 143.
- Heike, W.**, and **A. Leroux**, the solidification of silver-arsenic alloys, A., ii, 248.
- Heilbron, Isidor Morris**. See *James Alexander Russell Henderson*.
- Heine, Hermann**. See *Gustav Heller*.
- Heinemann, Arthur**, preparation of benzoic and sulphonbenzoic acids, A., i, 313.
- preparation of anthraquinone, A., i, 561.
- sulphonation of organic compounds, A., i, 801.
- Heinze, Richard**. See *Wilhelm Böttger*.
- Heise, George W.**, and **R. H. Aguilar**, oxygen-consuming power of natural waters, A., ii, 576.
- Hekma, Ebel**, fibrin and the coagulation of the blood. I., II., and III., A., i, 100.
- fibrin in its relation to problems of biology and colloid chemistry; the problem of blood coagulation. VI. The physical methods of fibrin separation and gel formation in fluids which clot, which occur naturally or have been artificially produced, A., i, 447.
- fibrin in its relation to problems of biology and colloid chemistry; the problem of blood coagulation. VII. The similarity of the fibrin separation to a crystallisation process on the one hand, and to a precipitation of colloids on the other hand; the general nature of the process of fibrin clotting, A., i, 448.
- fibrin and its relationship to certain problems of biology and colloidal chemistry. VIII. and IX., A., i, 513.
- Hektoen, L.** See *Anton Julius Carlson*.
- Heller, Gustav**, constitution of isatide, A., i, 753.
- Heller, Gustav**, [with *Hermann Heine*], constitution of anthranil. X., A., i, 428.
- Heller, Robert**, fluorescence of alkaloids and its application in toxicological investigations, A., ii, 502.
- Hemingway, E. Heaton**. See *Treat Baldwin Johnson*.
- Heimerlé, (Mlle.) R.**, diphenyldipyruvic acid, A., i, 485.
- Hempel, St.** See *Friedrich Kehrmann*.
- Hempel, Walther**, synthesis of obsidian and pumice, A., ii, 391.
- Henderson, G. H.**, the distribution of the active deposit of thorium in an electric field, A., ii, 169.
- Henderson, James Alexander Russell**, and **Isidor Morris Heilbron**, semicarbazones. V. Semicarbazones of benzaldehyde and some of its substitution products, A., i, 148.
- Henderson, William E.**, and **Wilmer C. Gangloff**, action of anhydrous aluminium chloride on unsaturated compounds, A., i, 593.
- Henkel & Co.**, preparation of sodium percarbonate, A., ii, 616.
- Henrich, Ferdinand**, absorption of oxygen in alkaline solutions, and a new absorbent for oxygen, A., ii, 111.
- gas content of the Taunus rocks and its relationship to the gases of the Wiesbaden thermal springs, A., ii, 444.
- Henriques, Valdemar**, combustion in the lungs and the estimation of the blood gases, A., i, 99.
- the action of intravenous infusions of hypertonic solutions of various salts and organic substances on the respiratory metabolism, A., i, 520.
- Henry, Paul**, the nitrile of vinylacetic acid, A., i, 549.
- Henze, Martin**, storax. I. Identification of conifer resin acids (abietic and pimaric acids), A., i, 826.
- Hepburn, Joseph Samuel**, and **Charles Blizard Bazzoni**, the retention of activity by urease and by oxydase after exposure to the temperature of liquid air, A., i, 175.
- Herrschel, F.** See *Fritz Foerster*.
- Hersey, C. B.**, comparison of methods for the estimation of casein in milk, A., ii, 403.
- Hertz, Gustav**. See *J. Franck*.
- Herz, Walter [Georg]**, some physical properties of elements and simple compounds, A., ii, 311.

- Herz, Walter** [*Georgy*], molecular condition of water as solvent, A., ii, 554.
- Herzer, F.** See *Ludwig Vanino*.
- Herzfeld, E.**, and *R. Klinger*, quantitative investigations on indole and tryptophan decomposition, A., i, 235.
- the chemistry and physiology of the coagulation of the blood. II. Fibrinogen solutions, thrombin, and its constituents, A., i, 613.
- Herzog, Johannes**, estimation of silver in organic preparations, A., ii, 115.
- Herzog, W.**, and *Adolf Jolles*, aromatic-aliphatic indigoid dyes, A., i, 74.
- Hess, Kurt**, action of Grignard's reagent on tertiary pyrroles, A., i, 157.
- Hess, Kurt**, and *Heinrich Fink*, action of derivatives of the propane series on pyrrole. II, A., i, 158.
- Hess, Kurt, F. Merck**, and *C. Ubrig*, a new oxidation method. II. The action of aldehydes on hydramines of the pyrrolidine and piperidine groups, A., i, 67.
- Hess, Kurt**, and *A. Suchier*, degradation of scopoline; scopoline \rightarrow hydroscopoline \rightarrow scopolic acid, A., i, 285.
- Hess, Kurt**, and *C. Ubrig*, a new oxidation method. III. Action of aldehydes on primary hydroxy-amines, A., i, 124.
- Hess, Kurt**, and *F. Wissing*, the halogen pyrroles. II., A., i, 69.
- synthesis of 1-methylpiperidine-2:6-dicarboxylic acid, A., i, 74.
- Hess, Kurt, F. Wissing**, and *A. Suchier*, the alkylation of pyrroles. III., A., i, 70.
- Hesse, Oswald** [*Julius*], lichens and their characteristic constituents. XIII., A., i, 264.
- lichens and their characteristic constituents. XIV. Use of lichens as provisions and fodder, A., i, 783.
- Hessler, John C.** [with *Thomas B. Magath, Fred F. Joel*, and *Margaret C. Hessler*], alkylcyanoacetic acids, A., i, 378.
- Hessler, Margaret C.** See *John C. Hessler*.
- Hettner, G.** See *Heinrich Rubens*.
- Hevesy, Georg von**, the size and mobility of the carriers of electricity in liquids. II., A., ii, 594.
- Hevesy, Georg von**, and *Fritz Paneth*, galvanic cells of lead isotopes, A., ii, 9.
- the question of isotopic elements. III., A., ii, 170.
- Hewitt, John Theodore**, and *Colin Henry Lumsden*, acetic anhydride, A., i, 305.
- Heydenreich, L.**, a thermo-regulator containing water, A., ii, 291.
- Heyder, Franz**. See *Paul Rohland*.
- Heydweller, Adolf**, heat of neutralisation and the quantum theory, A., ii, 84.
- atomic refraction, A., ii, 505.
- Heydweller, Adolf**, and *Otto Grube*, relationship between the physical properties of solutions. V. Ultra-violet dispersion of salts in water, A., ii, 364.
- Heyl, Frederick William**, and *Merrill C. Hart*, some constituents of sumbul root, A., i, 537.
- Heyn, Myron**. See *Heinrich Blitz*.
- Heyroth, Francis Farham**, a theory of multiple ionisation; a modification of the electrolytic dissociation theory, A., ii, 228.
- Hibbert, (Miss) Eva**. See *Edmund Knecht*.
- Hibbert, Harold**. See *Harry Essex*.
- Hibbert, John Charles**, new form of arsenic apparatus, A., ii, 446.
- Hiege, K.** See *Richard Lorenz*.
- Hildebrand, Joel H.**, solubility, A., ii, 518.
- Hildebrand, Joel H.**, and *W. G. Bowers*, a study of the action of alkali on certain zinc salts by means of the hydrogen electrode, A., ii, 327.
- Hildebrand, Joel H.**, and *Ermon Dwight Eastman*, vapour pressure of thallium amalgams, A., ii, 14.
- Hildebrandt, F. M.** See *A. G. McCall*.
- Hill, Arthur Joseph**. See *Treat Baldwin Johnson*.
- Hill, D. U.** See *Ralph Gibbs van Name*.
- Hille, E.** See *Hans von Euler*.
- Hillers, Dietrich**. See *August Darapsky*.
- Hilpert, Siegfried**, solubility of naphthalene in ammonia; cause of naphthalene stoppages in pipes, A., ii, 201.
- Hilpert, Siegfried**. See also *Franz Fischer*.
- Hinck, Claus Friedrich**. See *Max Trautz*.
- Hind, Mildred**, studies in permeability. III. Absorption of acids by plant tissue, A., i, 534.
- Hines, Harry M.** See *Louis Baumann*.
- Hinks, Edward**, persistence of hydrogen peroxide in milk, A., ii, 109.
- Hinsberg, Oscar** [*Heinrich Daniel*], sulphones of the thiophen series, A., i, 66.
- $\beta\beta$ -dinaphthol and 2-hydroxy- α -naphthyl β -naphthyl ether, A., i, 207.
- β -naphthol sulphide and *iso*- β -naphthol sulphide. III., A., i, 723.
- the sulphur atom, A., i, 725.

- Hinteler, Bernard.** See *Gerhard Carl Schmidt*.
- Hinterseber, R.** See *Karl von Auwers*.
- Hirschel, Guillaume**, the electric spark as a pulveriser of solutions, and its use in order to obtain a monochromatic light, A., ii, 366.
- Hirzel, H.** See *Hermann Staudinger*.
- Hissink, David Jacobus**, analysis of soils with strong, hot hydrochloric acid, A., ii, 64.
- Hnatek, Adolf**, absorption spectra of a series of aniline dyes and the separation of certain portions of the spectrum by means of gelatin filters, A., ii, 67.
- Hoagland, D. R., and L. L. Lieb**, the complex carbohydrates and forms of sulphur in marine algae of the Pacific Coast, A., i, 195.
- Hochstetter, Armin**, preparation of methyl chloride from methane, A., i, 625.
- Hocker, Carl D.** See *F. E. Bartell*.
- Hodgson, B.** See *S. Brodetsky*.
- Hodgson, George Dufour**. See *Frederick Daniel Chattaway*.
- Höchberg, Alexander**. See *Richard Lorenz*.
- Hoeflake, (Mlle.) J. M. Å.**, the nitration of some derivatives of phenol, A., i, 472.
- Hölzle, A.** See *Erwin Rupp*.
- Hönig, A.**, electrolytic deposition of brass, A., ii, 548.
- Hönigschmid, Otto**, atomic weights of the isotopes thorium and ionium, A., ii, 407.
radio-elements, A., ii, 593.
- Hönigschmid, Otto**, and *Stefanie Horovitz*, the atomic weight of uranium, A., ii, 484.
revision of the atomic weight of thorium; analysis of thorium bromide, A., ii, 510.
concerning the atomic weight of ionium, A., ii, 510.
- Höst, H. F.**, colorimetric estimation of uric acid in the blood, A., ii, 401.
- Hoff, Agnes**, an improved method for the preparation of allyl alcohol, together with a critical examination of the methods hitherto used, A., i, 6.
- Hoffman, Ernest Jenkins**, nitration of toluene, A., i, 553.
- Hoffmann, Fritz**, formulæ for use in the indirect analysis of generator gas, A., ii, 149.
frequency sources of error in the analysis of generator gas, A., ii, 395.
- Hoffmann, Joh. Friedrich, and Fr. Preckell**, estimation of acidity in potatoes, A., ii, 58.
- Hoffmann, La Roche & Co., F.**, preparation of alkaloids of the morline series and their salts containing no N-methyl groups, A., i, 417.
preparation of *N*-allylnorcodeine and *N*-allylhydronorcodeine, A., i, 418.
preparation of non-hygroscopic salts of choline, A., i, 468.
- Hofman, F. B., and Takuzo Sakai**, the action of certain inorganic salts and quinine on the activity of the mammalian heart, A., i, 186.
- Hofmann, Alice**, the substituted benzoylbenzoic acids, A., i, 143.
- Hofmann, Karl Andreas**, volumetric estimation of hydrogen by oxidation with activated chlorate solutions; removal of carbon monoxide by means of mercuric chromate, A., ii, 636.
- Hofmann, Karl Andreas, and Helge Schibsted**, contact poisons; retardation of the oxidation of hydrogen in the chlorate pipette by carbon monoxide, A., ii, 637.
- Hofmann, Karl Andreas, and Otto Schneider**, activation of chlorate solutions by osmium, III. Separation of hydrogen and methane; catalysis of mixtures of hydrogen and oxygen, A., ii, 45.
- Hofmann, Karl Andreas, and K. Schumpelt**, formation of formaldehyde and other organic substances from formic acid. I. Auto-reduction of formates, A., i, 369.
- Hogan, Albert G.**, nutritive properties of maize, A., i, 861.
- Hogg, Elton Marion**. See *Stewart Woodford Young*.
- Hohlbaum, Richard**. See *Anton Skrabal*.
- Holden, W. H. T.** See *William Allen Drushel*.
- Hollande, A. Ch.**, anti-coagulating power of aniline acid dyes with respect to proteins, A., i, 574.
- Hollande, A. Ch., M. Lepeytre, and J. Gaté**, albuminuria produced by intravascular injection of ovalbumin, A., i, 103.
- Holleman, Arnold Frederik**, [with *W. J. de Mooy* and *J. ter Weel*], replacement of substituents in the benzene nucleus, A., i, 22.
- Holler, H. D., and E. L. Peffer**, density of aqueous solutions of copper sulphate and sulphuric acid, A., ii, 397.
- Holmberg, Bror**, stereochemical studies. I. Stereochemistry of the thiolmalic acids, A., i, 307.

- Holmes, August.** See *C. Alfred Jacobson.*
- Holmes, Harry N.**, an inexpensive dialyser for class use, A., ii, 418.
- Holmes, Harry N.**, and *R. E. Bindfusz*, washing precipitates for peptisation, A., ii, 422.
- colloidal arsenates and phosphates of iron, A., ii, 624.
- Holmes, J. E. L.**, and *Harry Clary Jones*, action of salts with water of hydration and without water of hydration on the velocity of saponification of esters, A., ii, 234.
- Holmes, Mary E.** See *Dorothy A. Hahn.*
- Holst, G.**, the measurement of very low temperatures. XXVI. The vapour pressures of oxygen and nitrogen according to the pressure measurements by von Siemens and the temperature determinations by Kamerlingh Onnes, A., ii, 125.
- Holst, G.**, and *L. Hamburger*, the equilibrium liquid-vapour of the system : argon-nitrogen, A., ii, 132.
- Holt, Alfred**, preparation of ethyl bromide, T., 1; A., i, 245.
- Holtz, Johanna.** See *Wilhelm Schlenk.*
- Homberger, Alfred W.**, and *J. C. Munch*, [the amount of] morphine in the various organs after injection into cats and rabbits, A., i, 779.
- Homer, (Miss) Annie**, concentration of antitoxic sera, A., i, 614.
- the cause of lessened production of indole in media containing dextrose, A., i, 866.
- Honda, Kotarō**, and *Torajirō Ishiwara*, the thermomagnetic properties of various compounds and the Weiss theory of magnetons, A., ii, 78.
- Honda, Kotarō**, and *Hiromu Takagi*, a magnetic study of the A3 transformation in pure iron, A., ii, 105.
- the magnetic transformation of cementite, A., ii, 105.
- Hooker, Marian O.** See *Martin Henry Fischer.*
- Hooper, C. W.**, and *G. H. Whipple*, icterus; a rapid change of haemoglobin into bile-pigment in the pleural and peritoneal cavities, A., i, 191.
- Hopfe, A.** See *W. Eilenberger.*
- Hopfgartner, Karl**, transport number of the ferric ion in ferric chloride solutions, A., ii, 11.
- Hopkins, Frederick Gowland**, newer standpoints in the study of nutrition, T., 629; A., i, 581.
- Hopkins, Frederick Gowland.** See also *George Winfield.*
- Hopwood, F. Lloyd.** See *A. Ogg.*
- Horiba, Shinkichi**, the equilibrium of a system of three components where two liquid phases co-exist, A., ii, 301.
- chemical resistance, A., ii, 305.
- Hornor, A. A.** See *W. R. Bloor.*
- Horovitz, Stefanie.** See *Otto Höningschmid.*
- Hormann, Poul**, picrotoxin, A., i, 566.
- constitution of picrotic acid, $C_{15}H_{18}O_4$. I. Degradation of the acid to an aldehyde, $C_{12}H_{12}O_3$, A., i, 828.
- Horrmann, Paul**, and *Hans Wächter*, hydrolysis of picrotoxin by methyl-alcoholic potassium hydroxide; picrotoxic acid, A., i, 827.
- Horsch, Stavros.** See *Demetrios E. Tsakalotos*, and *Constantin Zenghelis.*
- Horváth, Béla von**, estimation of silica in soils, A., ii, 644.
- Horváth, Béla von**, and *Heinrich Kadletz*, estimation of carbamide in urine by means of urease, A., ii, 586.
- Hoskins, Roy Graham**, failure of pituitrin to sensitise the sympathetic system, A., i, 189.
- Hostetter, J. Clyde**, and *Robert B. Sosman*, dissociation of ferric oxide in air, A., ii, 440.
- Hostetter, J. Clyde.** See also *Robert B. Sosman.*
- Hougen, Anton.** See *Heinrich Goldschmidt.*
- Hougen, Haakon.** See *Heinrich Goldschmidt.*
- Howland, John, F. H. Haessler**, and *Williams McKim Marriott*, micro-colorimetric estimation of calcium and of inorganic phosphates in the blood serum, A., ii, 269.
- Hoyt, Samuel L.**, and *Paul H. M. P. Brinton*, the copper-rich kalchoids, A., ii, 138.
- Hoyt, William V.** See *William Jay Hale.*
- Hubbard, R. S.** See *Philip Anderson Shaffer.*
- Huber, Harry L.**, the ammonia of the gastric juice, A., i, 182.
- Huber, J.** See *Alexander Gutbier.*
- Hudson, Claude S.**, some numerical relations among the rotatory powers of the compound sugars, A., i, 630.
- Hudson, Claude S.**, and *Dirk Hendrik Brauns*, a second crystalline levulose penta-acetate (α -levulose penta-acetate), A., i, 118.
- crystalline β -methyl-l-levuloside and its tetra-acetate, A., i, 547.
- Hudson, Claude S.**, and *J. K. Dale*, isomeric penta-acetates of glucosamine and of chondrosamine, A., i, 597.

- Hudson, Claude S.**, and *T. S. Harding*, preparation of melibiose, A., i, 120.
- Hudson, Claude S.**, and *J. M. Johnson*, the isomeric tetra-acetates of xylose; the acetates of melibiose, trehalose, and sucrose, A., i, 117.
- a fourth crystalline penta-acetate of galactose and some related compounds, A., i, 546.
- Hudson, Claude S.**, and *Ralph Sayre*, optical rotatory powers of some acetylated derivatives of maltose, cellose, and lactose, A., i, 711.
- Hudson, Claude S.**, and *E. Yanovsky*, isomeric α - and β -hexa-acetates of α -glucoheptose, A., i, 630.
- Hudson, Oswald Freeman**, and *R. M. Jones*, the constitution of brasses containing small percentages of tin, A., ii, 138.
- Hübner, R.** See *Reinhold von Walther*.
- Hüttner, Karl**. See *Franz Mylius*.
- Hughes, Frank**, alkaloids of some Egyptian Solanaceæ, A., i, 536.
- Hughes, William**. See *Malcolm Percival Applebey*.
- Hulett, George Augustus**. See *G. F. Lipscomb*, and *A. A. Swanson*.
- Hull, Mary**. See *John Harper Long*.
- Hulton, Florence**, formation of specific proteoclastic ferments in response to the parenteral injection of foreign proteins, A., i, 528.
- formation of specific proteoclastic ferments in response to introduction of placenta, A., i, 578.
- Hulton, Florence**. See also *Alonzo Englebert Taylor*.
- Hulton, Henry Francis Everard**. See *Julian Legett Baker*.
- Humphrey, E. C.** See *William Draper Harkins*.
- Humphrey, George C.** See *Edwin Bret Hart*.
- Humphrey, Irwin W.** See *Benjamin T. Brooks*.
- Hunt, Chas. H.**, new method for citrate-insoluble phosphoric acid, A., ii, 265.
- Hunt, W. F.**, and *Edward Henry Kraus*, the variable composition of melanochalcite, A., ii, 193.
- Hunt, W. F.** See also *R. W. Clark*.
- Hunter, Andrew**. See *Maurice Hope Givens*.
- Hunter, William Hammett**, *A. O. Olson*, and *E. A. Daniels*, catalytic decomposition of certain phenol silver salts, I., A., i, 717.
- Hurtley, William Holdsworth**, the four carbon atom acids of diabetic urine, A., i, 867.
- Hurtley, William Holdsworth**, and *J. W. Trevan*, physiologically action of acetoacetic acid and related substances, A., i, 867.
- Hurtley, William Holdsworth**. See also *Edward Cahen*.
- Hurwitz, S. H.**, *K. F. Meyer*, and *Z. Ostemberg*, a colorimetric method of adjusting bacteriological culture media to any optimum hydrogen-ion concentration, A., i, 194.
- Husmann, I.** See *Adolf Grün*.
- Hutin, A.**, estimation of total chlorine in caoutchouc substitutes, A., ii, 47.
- rapid analysis of commercial antimony sulphide, A., ii, 153.
- estimation of free sulphur in antimony sulphides, A., ii, 195.
- a water-blower and a laboratory furnace, A., ii, 388.
- Hyman, Henry**. See *Cecil Henry Desch*.

I.

- Ibáñez, Modesto Maestre**, use of soluble ferment in the estimation of urea, A., ii, 203.
- Ikeda, Yasuo**, the comparative [physiological] action of the stereoisomeric hydroxyhydrindamine, A., i, 235.
- Ilberg, Konrad**. See *Otto Diels*.
- Imhof, Alfred**, mathematical relationship between the boiling point and absorption coefficient of gases, A., ii, 218.
- physical properties of gases in relationship to their boiling points, A., ii, 414.
- Inczé, Georg**, potassium hydrogen carbonate as a standard in acidimetry and alkalinometry, A., ii, 146.
- Grete's direct volumetric method for estimating phosphoric acid in manures, A., ii, 490.
- Ingle, M. J.** See *B. G. Hartmann*.
- Ingvoldsen, Thorsten**. See *Louis Baumann*.
- Irineu, D.** See *Alfred Schaarschmidt*.
- Irineu, N.** See *Alfred Schaarschmidt*.
- Irion, A.** See *Alexander Gutbier*.
- Irmann, R.**, the influence of tungsten on nickel, A., ii, 530.
- Irvine, James Colquhoun**, and *James Leslie Auld Macdonald*, formation and preparation of glucosemonoacetone, A., i, 17.
- Irvine, James Colquhoun**, and *George Robertson*, evidence indicating the existence of a new variety of fructose; a reactive form of methylfructoside, T., 1305.

- Irvine, James Colquhoun.** See also *Walter Norman Haworth.*
- Iselin, Martin.** See *Hans Rupe.*
- Ishio, M.** See *Yasuhiko Asahina.*
- Ishiwara, Torajirō,** the magnetic susceptibility of manganese nitride, A., ii, 412.
- Ishiwara, Torajirō.** See also *Kōtarō Honda.*
- Issoglio, Giovanni,** new method for the analysis of rancid fats, A., ii, 401.
- Itallie, Leopold van,** and *J. A. van Toorenburg,* formation of alkaloids in *Papaver somniferum*, L. var. *nigrum*, and the opium obtained from the plant, A., i, 110.
- Ito, Chuziro.** See *Akira Ogata.*
- Ito, Hiszu,** formation of *d*-lactic acid by the autolysis of pus, A., i, 695.
- effects of temperature and fever on the synthesis of conjugated sulphuric and glycuronic acids in the organism, A., i, 776.
- Ivanov, A. A.** See *Alexander E. Arbuzov.*
- Izdebska-Domanska, (Frau) St.** See *J. V. Dubsky.*
- Izgaryshev, N. A.,** passivity of metals, A., ii, 7.
- Izmailski, V. A.,** relation between absorption and structure. II. Chromoisomerism and chromotropy with acid additive products of aldamines, A., i, 287.
- J.**
- Jackson, Charles Loring,** and *Roger Adams,* hexabromodiacetyl, A., i, 17.
- Jackson, Charles Loring,** and *Sydney Adams Beggs,* certain derivatives of tetrabromo-*o*-benzoquinone, A., i, 407.
- tetrabromo-*o*-phenylenediacetamide, A., i, 428.
- Jackson, Richard Fay,** saccharimetric normal weight and specific rotation of dextrose, A., ii, 651.
- Jacobs, Walter Abraham.** See *Phœbus A. Levene.*
- Jacobson, C. Alfred,** and *August Holmes,* lucerne. VI. Lucerne seed oil, A., i, 459.
- solubility data for various salts of lauric, myristic, palmitic, and stearic acids, A., i, 462.
- separation of lauric and myristic acids from each other and from mixtures of other fatty acids, A., i, 462.
- Jacoby, Martin,** the adsorption of urease and its activity in insoluble form, A., i, 517.
- Jacoby, Martin,** ferment immunity, A., i, 517.
- the auxo-action of amino-acids on ureases, A., i, 517.
- action of antiseptic substances on ureases, A., i, 517.
- the distribution of iodine compounds in the organism and its relationship to their constitution, A., i, 526.
- the excretion of magnesium by the urine, A., i, 527.
- the scission of urea by bacteria, A., i, 529.
- the action of serum on the scission of urea by bacteria, and the problem of the increase of bacterial virulence in the animal body, A., i, 529.
- general conceptions of intoxication, A., i, 778.
- Jadin, F.,** and *A. Astruc,* manganese in some springs in the Alps, A., ii, 145.
- the manganese in some springs rising in the Central Mountains and in some stations on the plain of Languedoc, A., ii, 336.
- Jaeger, Frans Maurits,** and *Jul. Kahn,* the temperature-coefficients of the free molecular surface energy of liquids from -80° to 1650° . XIII. The surface energy of position-isomeric benzene derivatives, A., ii, 126.
- the temperature-coefficients of the free molecular surface energy of liquids from -80° to 1650° . XIV. Measurements of a series of aromatic and heterocyclic substances, A., ii, 128.
- Jaeger, Frans Maurits,** and *H. S. van Klooster,* investigations in the field of silicate chemistry. IV. Data for the meta- and ortho-silicates of the bivalent metals: glucinium, magnesium, calcium, strontium, barium, zinc, cadmium, and manganese, A., ii, 186.
- Jänecke, Ernst,** the ternary system: lime-alumina-silica, A., ii, 325.
- transition of sodium sulphate, A., ii, 551.
- James, Charles,** and *A. J. Grant,* separation of the rare earths giving the more soluble double sulphates from Brazilian monazite sand, A., ii, 251.
- James, Charles,** and *G. A. Perley,* the extraction of glucinium from gadolinite, A., ii, 326.
- James, Charles,** and *P. S. Willand,* the rare earth cobalticyanides, A., i, 638.
- James, Charles.** See also *D. W. Bissell, J. P. Bonardi, A. J. Grant, and P. S. Willand.*

- James, Hugh W.**, estimation of toluene, and the application of the method to benzene and xylene, A., ii, 201.
- Jamieson, George Samuel**, volumetric estimation of tin by potassium iodate, A., ii, 451.
- Janko, Jos.** See *Adolf Grün*.
- Janney, J. H., jun.** See *D. Wright Wilson*.
- Janney, N. W.**, protein synthesis and metabolic diseases, A., i, 348.
- protein content of muscle, A., i, 583.
- estimation of the total protein and non-protein substances of muscle; improved technique, A., ii, 460.
- Janney, N. W.**, and *Norman R. Blatherwick*, the metabolic relationship of the proteins to dextrose. III. Formation of dextrose from human proteins, A., i, 182.
- Jansen, Barend Coenraad Petrus**, the reversibility of the formation of urea in the liver, A., i, 299.
- Jappelli, Antonio**, influence of the bromine-ion on uricolytic, A., i, 228.
- Jarrell, T. D.**, perchlorate and cobaltinitrite methods for the estimation of potassium, A., ii, 114.
- Javillier, Maurice**, culture of *Aspergillus niger* (*Sterigmostomyces nigra*) in liquids in which the zinc is replaced by different elements (copper, uranium, vanadium), A., i, 237.
- Jeffery, F. H.**, the electrolysis of concentrated hydrochloric acid, using a copper anode, A., ii, 411.
- the electrolysis of nitric, sulphuric, and orthophosphoric acids, using a gold anode, A., ii, 411.
- Jenner, F.** See *Oskar Baudisch*.
- Jenner, F. W.** See *Israel Lifschitz*.
- Jessen, W.** See *Otto Wallach*.
- Jewett, R. M.**, blood relationship of animals as displayed in the compositions of the serum-proteins. V. Percentage of non-proteins in the sera of certain animals and birds, A., i, 521.
- Jickling, R. L.** See *Moses Gomberg*.
- Jimeno Gil, Emilio**. See *Carl Drucker*, and *Julio de Guzmán Carrancio*.
- Jodidi, S. L.**, and *E. H. Kellogg*, application of the paper-pulp filter to the estimation of calcium and magnesium, A., ii, 198.
- general applicability of the paper-pulp filter to quantitative analysis, A., ii, 338.
- Jodlbauer, Alb.**, and *S. Kurz*, the toxicity, resorption, and excretion of cotoxin and similar substances, and of para-cotoxin, A., i, 587.
- Joel, Fred. F.** See *John C. Hessler*.
- Johns, Carl Oscar, George Augustus Geiger, and Arno Viehoever**, saponin from *Yucca radiosa*, A., i, 358.
- Johns, Carl Oscar, and David Breese Jones**, protein of the jack bean (*Canavalia ensiformis*), A., i, 357.
- Johns, Carl Oscar**. See also *Arno Viehoever*.
- Johnson, C. L.** See *Frank Burnett Dains*.
- Johnson, H. W.** See *Percy E. Brown*.
- Johnson, J. M.** See *Claude S. Hudson*.
- Johnson, Laurence C.** See *William Amos Noyes*.
- Johnson, Maxwell O.**, estimation of small quantities of hydrocyanic acid, A., ii, 455.
- Johnson, Treat Baldwin**, nitrated proteins. IV. The identification of 3-nitrotyrosine among the products of hydrolysis of nitrated fibroin, A., i, 48.
- Johnson, Treat Baldwin, and Joseph Sumner Bates**, hydantoins. XXXVII. Synthesis of the poly(peptidohydantoin, phenylalanylglycinehydantoin [4-benzylhydantoin-1-acetic acid], A., i, 504.
- Johnson, Treat Baldwin, and Leonard H. Cretcher, jun.**, pyrimidines. LXXIX. Synthesis of 4-aldehydohymidine, A., i, 756.
- Johnson, Treat Baldwin, and Sidney E. Hadley**, pyrimidines. LXXXI. Secondary pyrimidine-nucleosides and their unique behaviour on hydrolysis, A., i, 754.
- Johnson, Treat Baldwin, and E. Heaton Hemingway**, thiocyanates and thiocarbimides. IX. Ethyl thiocarbiminoacetate, A., i, 635.
- thiocyanates and thiocarbimides. X. Utilisation of tetrachloromethyl mercaptan for the preparation of alkylthiocarbimides, A., i, 717.
- Johnson, Treat Baldwin, and Arthur Joseph Hill**, nitrated proteins. V. Hydrolysis of nitrofibroin with hydrochloric acid, A., i, 611.
- Johnson, Treat Baldwin, and A. Willard Joyce**, pyrimidines. LXXVIII. Reduction of 6-chloro-2-thiolpyrimidines, A., i, 608.
- pyrimidines. LXXX. Mechanism of the action of bromine on 2-thiolpyrimidines, A., i, 671.
- pyrimidines. LXXXII. Synthesis of 1:3-diamines by reduction of 2-mercapto-6-oxypyrimidines [2-thiodihydropyrimid-6-ones], A., i, 755.
- Johnson, Treat Baldwin, and Robert C. Moran**, pyrimidines. LXXVII. The alkylation of 2-thiolpyrimidines, A., i, 78.

- Johnston, E. S.** See **A. G. McCall.**
- Johnston, John**, estimation of carbonic acid, combined and free, in solution, particularly in natural waters, A., ii, 396.
- Johnston, John, Herbert Eugene Merwin, and E. D. Williamson**, the several forms of calcium carbonate, A., ii, 438.
- Johnston, John**, and **E. D. Williamson**, complete solubility curve of calcium carbonate, A., ii, 389.
- Johnston, Robert A. A.**, Gay Gulch and Skookum meteorites, Yukon, Canada, A., ii, 259.
- Johnstone, J. H. L.**, the electrical resistance of acetic acid in the solid and liquid phases, A., ii, 171.
- Jolles, Adolf**, new reactions of indican, A., ii, 460.
- Jolles, Adolf**. See also **W. Herzog.**
- Jona, Judah Leon**, experimental study of fever, A., i, 191.
- Jona, Thémistocle**, synthesis of a chlorophyll pigment by Albert and Alexandre Mary, A., i, 660.
- Jones, David Breese**. See **Carl Oscar Johns.**
- Jones, David Trevor**, the thermal decomposition of hydrogenated aromatic hydrocarbons, A., i, 21.
- Jones, David Trevor**, and **Richard Vernon Wheeler**, the constitution of coal, T., 707; A., ii, 527.
- Jones, DeWitt O.** See **James Henri Walton.**
- Jones, F. Butler**. See **Percy E. Spielmann.**
- Jones, G. W.** See **George A. Burrell.**
- Jones, Harry Clary**. See **Paul Bell Davis, J. E. L. Holmes, H. H. Lloyd, E. J. Schaeffer, and Charles Watkins.**
- Jones, Hilton Ira**, and **Alfred Newton Cook**, mononitrophenyl ethers, A., i, 644.
- Jones, R. M.** See **Oswald Freeman Hudson.**
- Jones, Walter**, indirect method of estimating pyrimidine groups in nucleotides, A., ii, 356.
- admissibility of ammonium magnesium phosphate as a form in which to weigh phosphoric acid, A., ii, 394.
- Jones, Walter**, and **Hildegard C. Germainn**, hydrolysis of yeast-nucleic acid with ammonia, A., i, 515.
- Jong, Anne Willem Karel de**, the action of sunlight on the cinnamic acids, A., i, 209.
- Jong, Cornelis de**. See **Alexander Tschirch.**
- Jørgensen, Ingvor**. See **Walter Stiles.**
- Jorissen, Willem Paulinus**, "galvanic" corrosion of iron in water by means of copper-zinc alloys, A., ii, 568.
- Jorissen, Willem Paulinus**, and **J. A. Vollgraff**, transmutation of chemical elements. II., A., ii, 71.
- Joshi, N. V.**, a new nitrite-forming organism, A., i, 105.
- Joslin, E. P.** See **W. R. Bloor.**
- Joyce, A. Willard**. See **Treat Baldwin Johnson.**
- Jülicher, C.** See **Theodor Zincke.**
- Jurisch, E.** See **Adolf Sieverts.**
- Justin-Mueller, Ed.**, estimation of urea in blood-serum, A., ii, 655.

K.

- Kadletz, Heinrich**. See **Béla von Horváth.**
- Kaempfer, H.** See **Herbert Freundlich.**
- Kagan, I. B.** See **Petr Petrovitsch von Weimarn.**
- Kahnenberg, Heinrich**. See **Hartwig Franzen.**
- Kahn, Jul.** See **Frans Maurits Jaeger.**
- Kakehi, Shigeshi**, the respiratory metabolism of normal and anaemic subjects performing light muscular work, A., i, 769.
- Kaiser, O.** See **Amé Pictet.**
- Kalischer, Georg**, and **Fritz Mayer**, action of o-chlorobenzaldehyde on 1-amino-anthraquinone, A., i, 843.
- Kalusky, Louise**, estimation of glycerol in wine by Rothenfusser's method, A., ii, 541.
- Kam, (Mlle.) A. J. H.** See **B. J. Sjollema.**
- Kam, James**, a criticism of van der Waals's equation and some new equations derived therefrom, A., ii, 174.
- Kamm, Oliver**, and **Harry Bruce McClugage**, the structure of the dihydro-a-naphthoic acids, A., i, 395.
- Kamm, Oliver**. See also **Clarence G. Derick.**
- Kangro, W.** See **Carl Drucker.**
- Kanitz, Aristides**, relation between temperature and oxygen consumption in the animal organism, A., i, 99.
- Kappen, Hubert**, causes of acidity of soils which are acid through exchange of ions, A., i, 876.
- Kardos, M.** See **Carl Liebermann.**
- Karr, Walter G.**, and **Howard B. Lewis**, distribution of urea in the blood and tissues of certain vertebrates, with special reference to the hen, A., i, 773.
- Karr, Walter G.** See also **Howard B. Lewis.**

- Karrer, P.**, selenazine colouring matters, A., i, 434.
 the *d*-glucoside of dihydrocupreine, A., i, 832.
 the alkaloids of ipecacuanha, A., i, 833.
 tetramethylidiaminophenazine, A., i, 847.
 aromatic arsenic compounds. XI.
 Mixed arseno-compounds, A., i, 858.
- Karrer, P.** See also *Paul Ehrlich*.
- Karslake, William Jay**, and *Perry A. Bond*, 6-nitro-4-sulpho-*m-toluic acid* and some of its derivatives, A., i, 600.
- Kashiwaki, K.** See *Yasuhiko Asahina*.
- Kastle, Joseph Hoenig**. See *G. D. Buckner*.
- Katayama, Masao**, the relation between surface tension and other quantities, A., ii, 219.
- Katayama, Yetsuo**, nitrogen compounds of mulberry leaves, A., i, 875.
- Katz, J. R.**, causation of staleness of bread-crumb considered from the physiological-chemical point of view. I., II., and III., A., i, 465, 466.
 has light an influence on the process whereby bread becomes stale ? A., i, 547.
- remarkable property of aldehydes of preventing bread from becoming stale, A., i, 547.
- mode of attachment of the water of imbibition in crystals which are capable of swelling in water, A., ii, 379.
- mode of attachment of the water of imbibition in haemin crystals, A., ii, 380.
- assumption of micellæ is superfluous for the explanation of uncomplicated swelling by imbibition, A., ii, 419.
- Kauffmann, Hugo [Josef]**, deduction of valency laws; principle of variable states [conditioning formulæ], A., i, 817.
- Kaufmann, Adolf**, and *Radošlav Radošević*, synthesis of isoquinoline derivatives. I., A., i, 502.
- Kaufmann, Adolf**, and *Ernst Rothlen*, [with *B. Vargolici*], a new synthesis of damascenein, A., i, 417.
- Kay, Francis William**, manufacture of *p*-hydroxyphenylarsinic acid, A., i, 445.
- Kay, Sydney Alexander**, and *Susan H. Newlands*, determination of the hardness of natural waters, and the use of methyl-red as an indicator, A., ii, 344.
 estimation of calcium and magnesium in natural waters, A., ii, 345.
- Kayser, E.**, the ferments of rum, A., i, 454.
- Keegan, P. Q.**, plant chemistry, A., i, 195, 357, 783.
- Keesom, W. H.**, and *Heike Kamerlingh Onnes*, specific heat at low temperatures. II. Specific heat of copper between 14° and 90° (absolute), A., ii, 12.
 the specific heat at low temperatures. III. Measurements of the specific heat of solid nitrogen between 14° (absolute) and the triple point, and of liquid nitrogen between the triple point and the boiling point, A., ii, 371.
- Kehrmann, Friedrich**, [methylphenazonium iodid-s], A., i, 164, 668.
 constitution and colour. IV. Colour of azo-compounds and their salts, A., i, 165.
- Kehrmann, Friedrich**, and *A. Danecki*, chromoisomerism of onium-compounds. II. "Chromo-isomerism" of the salts of 9-phenylacridine, A., i, 744.
- Kehrmann, Friedrich**, [with *St. Hempel*], stereochemistry of quinoneoximes. VIII. Constitution of the chlorotoluquinoneoximes prepared by Oliveri-Tortorici from *o*- and *m*-cresol, A., i, 657.
- Kehrmann, Friedrich**, [with *F. Mussmann, Carlo Facchinetti, Giuseppe Silva*, and *Cornelius Keleti*], stereochemistry of the quinoneoximes, A., i, 210.
- Kehrmann, Friedrich**, [with *Adrien Robert*, and *Maurice Sandoz*], dyes of the methylene-blue group. II. Phenyl derivatives of methylene-blue and thionine, A., i, 673.
- Kehrmann, Friedrich**, [with *R. Speitel*], dyes of the methylene-blue group. I. Preparation of methylene-blue as a lecture experiment, A., i, 435.
- Kelbasinskaja, (Mile.) I. M.** See *Ivan I. Ostromisslenski*.
- Kelbasinski, S. S.** See *Ivan I. Ostromisslenski*.
- Kelber, C.**, catalytic hydrogenation of organic compounds with base metals at room temperature, A., ii, 309.
 catalytic hydrogenation of organic compounds with base metals at the ordinary temperature. II. Influence of contact poisons on the hydrogenation, A., ii, 609.
- Keleti, Cornelius**. See *Friedrich Kehrmann*.
- Kellberg, I. N.** See *George Kimball Burgess*.

- Kelley, George Leslie, and James Bryant Conant**, electrometric titration of vanadium, A., ii, 274.
 estimation of chromium and vanadium in steel by electrometric titration, A., ii, 540.
 the use of diphenylglyoxime as an indicator in the volumetric estimation of nickel by Frevert's method, A., ii, 580.
- Kellogg, E. H.** See *S. L. Jodidi*.
- Kemnitz, G. A. von.** See *Hans Fischer*.
- Kempf, A.** See *Emilio Noeling*.
- Kendall, James**, additive compounds of phenols with organic acids, A., i, 599.
 the specific conductivity of pure water in equilibrium with atmospheric carbon dioxide, A., ii, 512.
- Kendall, James, and James Eliot Booge**, catalysis. I. Additive compounds of esters with organic acids, A., i, 707.
- Kennedy, Cornelia.** See *Elmer Verner McCollum*, and *Chauncey J. Vallette Pettibone*.
- Kenyon, Joseph.** See *Henry Drysdale Dakin*.
- Kern, J.** See *G. Hager*.
- Kern, Wih.** See *Otto Fischer*.
- Kerr, Robert H.**, method for the detection of arachidic acid, A., ii, 652.
- Kerstjens, A. H.** See *Jacob Böeseken*.
- Keyes, Frederick G., and W. K. Wininghoff**, conductivity of solutions of certain iodides in isoamyl and propyl alcohols, A., ii, 407.
- Keys, David A.** See *John Cunningham McLennan*.
- Kidd, Franklin**, the controlling influence of carbon dioxide. III. The retarding effect of carbon dioxide on respiration, A., i, 176.
- Kikkawa, H.** See *Charles Alfred Edwards*.
- Kilchling, L.**, relationships in band spectra, A., ii, 405.
- Kiliiani, Heinrich**, the glucosides of digitalis seeds and their scission products, A., i, 493.
- Kiltinovic, Stanislav Stanislavovič**. See *Leo Alexandrovitch Tschugaev*.
- Kimata, Yasukiyo**, metallographic study of the system: tellurium-selenium, A., ii, 29.
 metallographic study of the system: antimony-tellurium, A., ii, 39.
- Kimura, Masao**, alloys of tellurium with lead, A., ii, 34.
- Kinscher, Max.** See *Carl Paal*.
- Kippenberger, Carl**, new forms of laboratory apparatus, A., ii, 636.
- Kirchhoff, Georg.** See *Paul Pfeiffer*.
- Kirpal, Alfred, and Theodor Bühn**, estimation of methyl in compounds containing sulphur, A., ii, 154.
- Kishner, N.**, reduction of indigotin by means of triethylphosphine, A., i, 290.
 action of hydrazine on dibenzylideneacetone [distyryl ketone]; conversion into derivatives of cyclopropane and cyclopentane, A., i, 290.
- Kisskalt, Karl**, the relationship between toxic dose and body surface, A., i, 104.
- Kissling, R**chard, estimation of nicotine in tobacco, A., ii, 587.
- Klammer, C. E.** See *Jacob Böeseken*.
- Klausing, Friedrich.** See *Karl Schaum*.
- Kleber, J.** See *Paul Pfeiffer*.
- Klein, Wilhelm**, the physiology of nutrition of domestic animals, especially of the ox, A., i, 183.
- Kleiner, Israel Simon, and Samuel James Meltzer**, production of hypoglycaemia and glycosuria by magnesium salts, A., i, 353.
- Kleiner, Simon B.** See *Henry G. Barbour*.
- Klemenc, Alfons**, demethylation of phenol ethers and esters by means of the hydrochlorides of aromatic bases; preparation of anilides and their homologues, A., i, 820.
- Kline, B. S., and Samuel James Meltzer**, production of pneumonia by intrabronchial insufflation of unorganised substances, A., i, 234.
- Klinger, Gabriel.** See *Oskar Baudisch*.
- Klinger, R.** See *E. Herzfeld*.
- Klooster, H. S. van.** See *Frans Maurits Jaeger*.
- Klostermann, Max, and Hermann Opitz**, estimation of phytosterol in vegetable fats, A., ii, 499.
- Klostermann, Max, and K. Scholta**, detection and estimation of "saccharin," A., ii, 586.
- Knack, A. V.** See *Johann Feigl*.
- Knake, Bernard, and H. Salkowski**, the anhydrides of β -m-hydroxyphenylpropionic acid, A., i, 820.
- Knapman, Frederick G. W., and Ernest Leslie Randall**, estimation of ferro- and ferri-cyanides in the presence of cyanides and thiocyanates, A., ii, 501.
- Knapp, Arthur W.**, a simple method of obtaining melting points of fats, etc., A., ii, 80.
- Knapp, D. R.** See *William Allen Drushel*.
- Knecht, Edmund, and (Miss) Eva Hibbert**, estimation of alizarin and certain other dyestuffs, A., ii, 120.
 the absorption of colouring matters by charcoal and silica, A., ii, 552.

- Knight, George W.**, and **G. Formanek**, estimation of sucrose in condensed milk, A., ii, 350.
- Knocke, A.** See *Wilhelm Vaubel*.
- Knöpfer, Gustav**, action of hydrazine and azines on chloral and bromal hydrates, A., i, 714.
- Knoll & Co.**, preparation of a [cobalt] salt of cholic acid, A., i, 117.
- preparation of a derivative of α -bromo-isovaleramide, A., i, 253.
- Knowles, H. I.** See *John F. Norton*.
- Knublauch**, a source of error in the analysis of coal which contains large quantities of alkaline earth carbonates, A., ii, 112.
- Knudson, Arthur**. See *W. R. Bloor*.
- Köber, Philip Adolph**, and **Arthur B. Haw**, spectrophotometric study of copper complexes and the biuret reaction, A., i, 377.
- Koch, Alfred**, and **Alice Oelsner**, influence of pine resin and tannin on the nitrogen economy and on the physical properties of the soil, A., i, 454.
- Kocher, R. A.**, mechanism of the sparing action of carbohydrates on protein metabolism, A., i, 689.
- Köhler, Fritz**, rhythmic crystallisation of sulphur, A., ii, 28.
- rhythmic reactions. I., A., ii, 554.
- Koelsch, H.**, estimation of sulphur in zinc blend, A., ii, 194.
- Kohler, Elmer Peter**, the addition of aliphatic nitro-compounds to unsaturated compounds, A., i, 404.
- Kohler, Elmer Peter**, and **Richard Harkness Patch**, some reactions resulting in the cleavage of polynuclear aromatic compounds, A., i, 557.
- Kohlschütter, Volkmar**, and **A. Frey**, peptisation of solid thorium oxide, A., ii, 485.
- Kohn, Kamil**. See *Jaroslav Milbauer*.
- Kohn, Moritz**, action of aldehydes on primary hydroxy-amines, A., i, 424.
- Kohn, Moritz**, and **Alfons Ostersetzer**, reactions of lactones. II., A., i, 605.
- derivatives of isatin and dioxindole. VI. A., i, 607.
- Kohn-Abrest, Emile**, action of oxalic acid on crystallised sodium sulphate, A., i, 368
- detection of picric acid in urine and viscera, A., ii, 352.
- Koifmann, Ide**, silver-platinum alloys and their analysis, A., ii, 144.
- Kolosovski, N. A.**, physico-chemical force of attraction. II., A., ii, 176.
- Kolthoff, I. M.**, a chemical paradox, A., i, 734.
- action of neutral salts on indicators, A., ii, 260.
- titration of hypophosphites, A., ii, 490.
- estimation of the alkalinity and phosphoric acid content of the ash of feeding stuffs, A., ii, 538.
- effect of neutral salts on the dissociation constant of water, A., ii, 596.
- Komatsu, Shigeru**, stereochemistry of quinquevalent nitrogen. II. Resolution of the asymmetric quaternary ammonium compounds, A., i, 31.
- stereochemistry of quinquevalent nitrogen. IV. The absorption spectra of quaternary ammonium compounds; non-equivalence of the five valencies of quinquevalent nitrogen, A., i, 554.
- Kondo, R.** See *Johannes Gadamer*.
- Koopman, L.**, adaptation of ferments, A., i, 101.
- Koopmann, H.** See *Johann Feigl*.
- Kopelow, Nicholas**, effect of soil reaction on ammonification by certain soil fungi, A., i, 702.
- Korevaar, A.**, velocity of hydrogenation of fumaric acid with colloid palladium as catalyst, A., ii, 183.
- Kornblum, Isaac**. See *Fritz Ephraim*.
- Kornfeld, Gertrud**, hydrates in solution, A., ii, 129.
- the velocity of ionic reactions, A., ii, 134.
- Korschun, Georgi**, [with A. Gounder], the mechanism of the saponification of pyrrole derivatives, A., i, 606.
- saponification of the esters of the pyrrole-carboxylic acids at a temperature of 50°, A., ii, 525.
- Koschelev, F. F.** See *Ivan I. Ostromisslenski*.
- Kosian Wilhelm**, estimation of arsenic in urine, blood, and animal organs, A., ii, 118.
- Kossel, Walther**, the formation of molecules in its dependence on atomic structure, A., ii, 243.
- Kouropatwinska, S.** See *T. Warynski*.
- Kowalke, O. L.**, and **D. S. Grenfell**, the temperature of reaction between Acheson graphite and magnesia, A., ii, 30.
- Kozicki, G. von**, and **St. von Pilat**, naphthenic acids, A., i, 814.
- Kräuter, J.** See *Alexander Gutbier*.
- Kragen, Siegfried**, a new method for the quantitative estimation of cadmium by means of pyridine, A., ii, 647.

- Kramer, B.**, and *H. W. Coffin*, rôle of psychic and sensory stimuli in the hyperglycaemia produced by lowering the environmental temperature of dogs, A., i, 685.
- Kramer, B.**, and *J. Marker*, is the dextrose retained when sodium carbonate is administered to de-pancreatised dogs, stored as glycogen? A., i, 348.
- Kraus, Edward Henry**. See *W. F. Hunt*.
- Krause, Erich**. See *Gerhard Grützner*.
- Krause, Hugo**, preparation of alkylamines, A., i, 793.
- Krauss, Robert B.**, electrolytic estimation of iodine present in organic matter, A., ii, 260.
- Krausz, A.** See *A. Bolland*.
- Kregczy, A.** See *Emilio Noelting*.
- Krefton, J. R. N. van**, the structure of the campholenic acids, A., i, 480.
- Kreis, Hans**, and *W. I. Baragiola*, detection of small quantities of oxalic acid in wine, A., ii, 158.
- Kremann, Robert [Konrad]**, energy changes in binary systems. VII. The heats of mixing of binary mixtures, A., ii, 471.
- energy changes of binary systems. VIII. The connexion between the heats of mixing and the vapour pressure curves of binary systems, A., ii, 515.
- Kremann, Robert**, and *Vojislav Borjanovic*, polyiodides. III. The system : CuI_2 , A., ii, 139.
- energy changes in binary systems. V. Constitution of the ternary system : *m*-cresol-aniline-benzene according to viscosity measurements, A., ii, 472.
- Kremann, Robert**, and *N. Schneider-Schitsch*, energy changes in binary systems. VI. Constitution of the ternary system : *m*-cresol-dimethylaniline-benzene, A., ii, 472.
- Kremann, Robert**, *F. Wischo*, and *R. Paul*, [mixtures of phenol and camphor in the light of the phase rule], A., i, 217.
- Kritchevsky, W.** See *George Bell Frankforter*.
- Kröber, Ludwig**, valuation of rhamnus bark, A., ii, 460.
- Krösché, Walter**, hydrogenation of esters of nitrobenzoic acid in acid solution; preparation of esters of hydroxybenzoic acid, A., i, 393.
- Kroll, Paul**, the citric acid solubility of the phosphate in Thomas's slag, A., ii, 389.
- Krone, O. A.**, method of gas analysis, A., ii, 268.
- Kronstein, Abraham**, fatty oils in the light of mesomorphous polymerisation, A., i, 462.
- Krumhaar**, recovery of copper sulphate from the filtrates obtained in the gravimetric estimation of sugars with Fehling's solution, A., ii, 202.
- Kruyt, Hugo Rudolph**, the doubly-refractive sol of vanadium pentoxide, A., ii, 486.
- Kubelka, V.**, adsorption. I., A., ii, 297.
- Kühn, B.**, and *J. Wewerinke*, detection of phytosterol in animal fats by precipitation with digitonin, A., ii, 499.
- Kühn, Curt**, dispersion, surface and adsorption, A., ii, 552.
- Küng, A.**, two new lecture experiments, A., ii, 426.
- Küster, Carl**. See *Carl Paal*.
- Küster, Ernst**, Liesegang's rings and related phenomena. IV. The morphological characters of Liesegang's rings, A., ii, 380.
- Küster, William**, mechanism of the formation of the colouring matter of bile from the ferruginous components of the colouring matter of blood, A., i, 280.
- constitution of haemin and bilirubin, A., i, 515.
- Kuhn, E.** See *Alexander Gutbier*.
- Kunder, Herm.** See *Max Busch*.
- Kuno, Yas.** See *M. Kuroda*.
- Kuntze, Fritz**. See *Johannes Gadamer*.
- Kunz, Eduard**, saccharification of starch by hydrofluoric acid, A., i, 202.
- pentose and the so-called furfuroids, A., i, 590.
- Kunz, Rudolf**, estimation of total tartaric acid, calcium tartrate, potassium hydrogen tartrate, and free tartaric acid in wine, A., ii, 57.
- Kunz-Krause, Hermann**, formaldehyde containing copper, A., i, 545.
- the scission of uric acid by the soybean, A., ii, 586.
- Kuriyama, Shigenobu**, utilisation of sucrose and the inverting power of the blood serum after parenteral administration of sucrose, A., i, 688.
- Kuroda, M.**, and *Yas Kuno*, vagus stimulation of the adrenalised heart, A., i, 187.
- Kurosawa, Junzo**, 2:3-dihydroxy-1-n-propylbenzene, A., i, 38.
- Kurz, S.** See *Alb. Jodlbauer*.
- Kuzirian, Simon Boghos**, estimation of calcium in ash of forage plants and animal carcases, A., ii, 647.

Kym, Otto, and **M. Ringer**, some amino-azimino bases and azo-dyes derived from them, A., i, 81.

L.

Laan, Focko Hendrik van der, the osmotic equilibrium between blood and milk, II., A., i, 447.

Laar, Johannes Jacobus van, the additivity of the values of b and \sqrt{a} of the equation of state and the fundamental values of these quantities for different elements in connexion with the periodic system, A., ii, 386.

the validity of Mathew's so-called valency law, A., ii, 387.

the fundamental values of the quantities b and \sqrt{a} for different elements in connexion with the periodic system. II. Mercury and antimony; general methods, A., ii, 610.

Lachs, Hilary, simultaneous adsorption by two adsorbing media, A., ii, 225. the product of the radioactivity of potassium and rubidium, A., ii, 547.

Lacroix, [Antoine François] Alfred, a new mineral (furnacite) from the Middle Congo (French Equatorial Africa), A., ii, 335.

molten silicic acid as mineral (lechatelierite), A., ii, 335.

malacite from the pegmatites of Madagascar, A., ii, 336.

manandontite and cookeite, A., ii, 336. the pure kiesefulgnrites of the Eastern Sahara and certain silicious fulgurites of the Pyrenees, A., ii, 336.

ambatoarinite, a new mineral from Madagascar, A., ii, 569.

ceriferous encoite from Madagascar, A., ii, 633.

La Forge, Frederick Burr, new sugar (mannosidoheptose) from the avocado, A., i, 357.

Lagutt, J., an antipyretic, o-sulphonyl-aminobenzo-p-phenetidide, and process for producing the same, A., i, 46.

Lambert, William James. See *Frederick Daniel Chattaway*.

Landsteiner, Karl, and **E. Prásek**, acetylated proteins, A., i, 574.

Lang, A., oxidation products of various graphites, A., ii, 561.

Lang, Joseph, changeable lines in the arc spectrum of iron, A., ii, 65.

Lang, Robert Milne, aridosis, A., i, 233.

Langdon, Seth C. See *Horace Greeley Byers*.

Lange, M. See *Hermann Wichelhaus*.
Langmuir, Irving, the melting point of tungsten, A., i, 30.

disociation of hydrogen into atoms.
III. The mechanism of the reaction, A., ii, 417.

Lanman, Edith H. See *Gilbert Newton Lewis*.

Larsen, Esper S., and **George Steiger**, sulphatic cancrinite from Colorado, A., ii, 632.

Last, E. See *Walther Dilthey*.

Lathrop, Ebert C., protein decomposition in soils, A., i, 703.

Latshaw, W. L., sodium sulphate as a substitute for potassium sulphate in the Gunning modifications for the estimation of nitrogen, A., ii, 489.

Lattey, Robert Tabor, some difficulties in Van Laar's theory of the vapor pressures of binary mixtures, A., ii, 83.

Laue, M. von, the migration of discontinuities in electrolytic solutions, A., ii, 289.

Lauffmann, R., the newer theories of tanning, A., i, 56.

detection of lactic acid in leathers, and also in tannin dyes and other liquids, A., ii, 56.

detection of free mineral acids and lactic acids in leather, A., ii, 57.

Laurin, E. See *Ivor Bang*.

Law, James. See *Walter Norman Haworth*.

Lawson, Robert W., the existence of a compound of polonium and hydrogen, A., i, 121.

Leather, John Walter, soil gases, A., i, 110.

Le Bas, Gervaise, some points connected with the representation of the benzene formula, A., i, 256.

the effect of unsaturation on the molecular volumes of organic compounds, A., ii, 375.

Lebedinski, W. See *Leo Alexandrovitsch Tschugaev*.

Lebensohn, James Elazer, the chlorides in diabetes after pancreatectomy, A., i, 190.

Le Blanc, Max, and **G. Wuppermann**, velocity of vaporisation of liquids, A., ii, 234.

Le Blanc, Max. See also *K. Andrich*.

Le Chatelier, Henri, the laws of solution, A., ii, 129.

the law of solubility, A., ii, 176.
the maximum solubility of calcium sulphate, A., ii, 433.

dehydratification of crystal [glass free from lime], A., ii, 437.

- Le Chatelier, Henri**, and **F. Bogitch**, the estimation of carbon by the Eggertz method, A., ii, 394.
- Lecher, Hans**, the valency problem of sulphur. II. Mercury thiophenol, A., i, 41.
- Lechner, Gedeon**. See *Wilhelm Seitz*.
- Le Count, E. R.** See *Anton Julius Carlson*.
- Lederer, Karl**, mercury double salts of aromatic tellurides, A., i, 40.
- aromatic telluretin compounds. III. (Conclusion), A., i, 141.
- preparation of aromatic tellurium compounds, A., i, 208.
- ortho-substituted xylyltellurium compounds, A., i, 392.
- mesityltellurium compounds, A., i, 393.
- mixed lead tetra-aryls, A., i, 446.
- m-tolyltellurium compounds, A., i, 646.
- p-anisyltellurium compounds, A., i, 647.
- action of nitric acid on aromatic tellurides, A., i, 647.
- attempts to prepare optically active tellurium compounds; phenyl-p-tolyltellurium compounds, A., i, 809.
- preparation of halogen-substituted tellurium compounds, A., i, 809.
- action of Grignard solutions on tellurium tetrachloride, A., i, 810.
- Lednicky, Victor E.** See *Walter E. Pratt*.
- Leduc, [Sylvestre] Anatole**, the latent heat of fusion of ice, A., ii, 217.
- coefficients of expansion of gases; applications; internal pressure and internal work; the experiments of Kelvin and Joule; perfect state of true gases, A., ii, 371.
- Leersum, Evert Cornelius van**, an explanation of the laxative action of white mustard seed, A., i, 621.
- Lefèvre, Léon**, the probable identity of Laurent's indine with the *isoindigo*tin of Wahl and Bagard, A., i, 430.
- the constitution of isatyde and isatan, A., i, 430.
- Léger, Eugène**, magnesium citrate in aqueous solution, A., i, 117.
- the changes produced by time in officinal magnesium citrate, A., i, 369.
- the isomeric acetyl derivatives of nata-loin and homonataloin, A., i, 413.
- Lehmann, Franz**. See *Erwin Rupp*.
- Lehmann, Otto**, mixed crystals of iron ammonium chloride, A., ii, 142.
- Leigh, W. N.**, estimation of alizarin in dyed cotton fabrics, and an attempt to ascertain the composition of turkey-red and other alizarin lakes, A., ii, 503.
- Leighton, Alan**, the adsorption of sodium hydroxide by cellulose, A., ii, 128.
- the adsorption of acids by cellulose, A., ii, 226.
- Leitmeier, Hans**, mineral gels, A., ii, 391.
- Lemkes, H. J.**, detection of phosphorus by the method of Du-art and Blondlot, and its application in toxicology, A., ii, 614.
- Lemmermann, Otto**, estimation of the citric acid-soluble phosphoric acid in Thomas slag by the Lorentz method, A., ii, 446.
- Lemoine, [Clément] Georges**, catalysis of hydrogen peroxide in a heterogeneous medium. I. General considerations; experiments with mercury, A., ii, 308.
- catalysis of hydrogen peroxide in heterogeneous medium. II. Experiments with platinum, A., ii, 309.
- catalysis of hydrogen peroxide in heterogeneous media; experiments with oxides, A., ii, 383.
- catalysis of hydrogen peroxide in heterogeneous media; experiments with carbon; conclusions, A., ii, 384.
- Lenher, Victor**, oxidation of manganese solutions in the presence of air, A., ii, 253.
- Lenher, Victor**, and **C. C. Meloche**, volumetric estimation of cerium by means of potassium permanganate, A., ii, 272.
- Lenher, Victor**, and **Emil Truog**, estimation of silica, A., ii, 396.
- Lenk, Emil**, the influence of electrolytes on the processes of imbibition. A. The action of single electrolytes, A., i, 346.
- the influence of electrolytes on the processes of imbibition. B. The action of combined electrolytes, A., i, 346.
- rapid methods for the estimation of albumin and sugar in urine, A., ii, 163.
- Leonard, Alfred Godfrey Gordon**, *o*-chlorobenzyl bromide and its products of hydrolysis, T., 570; A., i, 469.
- Leopold, S. S.** See *J. Harold Austin*.
- Lepape, Adolphe**. See *Charles Moureu*.
- Lepetit, Roberto**, and *Carlo Carta Satta*, querctin from the bark of *Pinus pinaster*, A., i, 458.

- Lepeyre, M.** See *A. Ch. Hollande*.
- Lépine, G.**, fluorescence of solutions, A., ii, 4.
- Lerch, H.** See *Karl Elbs*.
- Lerczynska, (Mme.) I.** See *Amé Pictet*.
- Leroux, A.** See *W. Heike*.
- Leroux, Henri.** See *René Masse*.
- Le Roy, G. A.**, the conservation in the cold of solutions of sodium aluminate, A., ii, 140.
- the free chlorine in town drinking waters, A., ii, 193.
- a reagent for detecting free chlorine in town drinking waters, A., ii, 535.
- Les Établissements Poulen Frères**, preparation of 4:4'-dihydroxy-3:3'-diaminoarsenobenzene, A., i, 175.
- amino-aliphatic acids containing an arseno-aryl group, A., i, 347.
- derivatives of *p*-dimethylaminophenyl-arsinic acid, A., i, 445.
- substituted phenylarsinic acid derivatives, A., i, 518.
- Leslie, E. H.** See *Joaquin Enrique Zanetti*.
- Leuchs, Hermann**, and *Ludwig Lock*, spirans. VII. Ring formation with spirans, A., i, 39.
- Leuchs, Hermann**, and *Hubert Rauch*, spirans. VIII. A new kind of rearrangement with oximes of certain ketones, A., i, 76.
- Levene, Phœbus Aaron [Theodor]**, ammonia derivatives of the sugars, A., i, 201.
- aminoglucoheptonic acid, A., i, 203.
- sphingomyelin. III, A., i, 220.
- chondrosamine, A., i, 712.
- synthesis of hexosamines. I, A., i, 713.
- the relation between the configuration and rotation of epimeric monocarboxylic sugar acids, A., ii, 3.
- optical rotation of epimeric α -hexosamic acids, A., ii, 546.
- Levene, Phœbus A.**, and *Walter Abraham Jacobs*, hydrolysis of yeast-nucleic acid in the autoclave, A., i, 516.
- Levene, Phœbus A.**, and *J. López-Suárez*, conjugated sulphuric acid of the mucin of pig's stomach (mucoin-sulphuric acid). I, A., i, 681.
- conjugated sulphuric acid of funis mucin (mucoin-sulphuric acid). II, A., i, 765.
- Levene, Phœbus A.**, and *Gustave M. Meyer*, relation between the configuration and rotation of epimeric monocarboxylic sugar acids. II, A., ii, 545.
- Levene, Phœbus A.**, and *James K. Senior*, preparation of guanidine sulphate, A., i, 638.
- vicine and divicine, A., i, 678.
- Levene, Phœbus A.**, and *C. J. West*, kephalin. II. Brain kephalin, A., i, 199.
- sphingosine. IV. Some derivatives of sphingosine and dihydrosphingosine, A., i, 219.
- kephalin of the egg yolk, kidney, and liver, A., i, 298.
- kephalin. IV. Phenyl- and naphthyl-carbamidocephalin, A., i, 682.
- cerebronic acid. V. Relation of cerebronic and lignoceric acids, A., i, 709.
- Levene, Phœbus A.**, *C. J. West*, *C. H. Allen*, and *J. van der Scheer*, synthesis of normal tridecic and tetraacosanic acids, A., i, 11.
- Levi, G.** See *Giuseppe Bruni*.
- Levi, Mario Giacomo**, and *A. Piva*, hydrogen from formates and from carbon monoxide, A., ii, 525.
- Levy, Meyer.** See *Gottfried von Weisse*.
- Lewes, Vivian Byam**, obituary notice of, T., 382.
- Lewis, Gilbert Newton**, the dissociation of carbonyl sulphide, A., ii, 99.
- the atom and the molecule, A., ii, 310.
- Lewis, Gilbert Newton**, *Elliot Quincy Adams*, and *Edith H. Lanman*, electrical transference in amalgams, A., ii, 76.
- Lewis, Harold A.** See *James Henri Walton*.
- Lewis, Howard B.**, the behaviour of some hydantoin derivatives in metabolism. III. Parabanic acid, A., i, 182.
- metabolism of sulphur. I. Relative eliminations of sulphur and nitrogen in the dog in inanition and subsequent feeding, A., i, 689.
- Lewis, Howard B.**, and *Walter G. Karr*, synthesis of hippuric acid in the animal organism. III. Excretion of uric acid in man after ingestion of sodium benzoate, A., i, 527.
- Lewis, Howard B.** See also *Walter G. Karr*.
- Lewis, Julian Herman**, adrenaline in human foetal suprarenal glands, A., i, 350.
- Lewis, William Cudmore McCullagh**, studies in catalysis. V. Quantitative expressions for the velocity, temperature-coefficient, and effect of the catalyst from the point of view of the radiation hypothesis, T., 796; A., ii, 559.
- Lewis, William Cudmore McCullagh**. See also *Raphael Heber Callow*, and *Robert Owen Griffith*.

- Leys, Alexander**, distinction between erythrosin and rose-bengal; estimation of their commercial value, A., ii, 163.
- Liao, Futung**. See *Friedrich Wilhelm Semmler*.
- Lichtenhahn, Theodor**. See *Fritz Fichter*.
- Lichtenstein, Stefanie**. See *Hans Pringsheim*.
- Lichtenstein-Rosenblat, S.** See *Isak Abelin*.
- Liddle, Leonard Merritt**. See *Ben H. Nicolet*.
- Lieb, Charles C.** See *Arthur Robertson Cushny*.
- Lieb, L. L.** See *D. R. Hoagland*.
- Liebermann, Carl, M. Kardos, and G. Mühle**, esters of polycinnamic acid, A., i, 47. action of oxalyl chloride on dianthryl, A., i, 50.
- Liebermann, Carl**, and *G. Mühle*, azafrin. III., A., i, 56.
- Liebermann, L. von**, and *Desider Acély*, approximate estimation of nitrates in water in the presence of nitrites, A., ii, 342.
- Liebers**, detection of albumin in urine, A., ii, 504.
- Liebert, F.**, apparent transformation of indicators, A., ii, 108.
- Liebmann, A.** See *Richard Lorenz*.
- Liechti, Paul**, and *Ernst Truniger*, examination and valuation of "nitrolime," A., ii, 394.
- Liesegang, Raphael Ed.**, forms of distribution of metallic silver, A., ii, 182. distribution of caffeine sodium salicylate, A., ii, 232. influence of neutral substances on the rate of change in jellies, A., ii, 236.
- Lifschitz, Israel**, action of hydrazine hydrate on nitriles, A., i, 436. quinhydrones, A., i, 823.
- Lifschitz, Israel**, and *F. W. Jenner*, chromo-isomeric salts and chromoesters of *p*-nitrobenzylcyanide(*p*-nitrophenylacetonitrile), A., i, 45.
- Lifschitz, Israel**, and *Ernst Rosenbohm*, magneto-chemistry of internally complex compounds, A., ii, 11.
- Lifschitz, Isaac**, oxycholesterol and its ester. II., A., i, 558.
- Lillie, Ralph Slayner**, mass action in the activation of unfertilised starfish eggs by butyric acid, A., i, 349.
- Lincio, Gabriele**, minerals of the metaliferous deposit of Borgofranco d'Ivrea, A., ii, 335.
- Lind, Samuel Colville**, practical methods for the determination of radium. II. The emanation method, A., ii, 114.
- Lindet, Léon** [*Gaston Aimé*], apparatus for measuring the carbon dioxide evolved during alcoholic fermentation, A., ii, 113.
- Lindhard, J.** See *Karl Albert Hasselbalch*.
- Linhart, George Augustus**, equilibria of mercuric chloride with other chlorides, A., ii, 483.
- Lint, H. Clay**. See *Jacob Goodale Lipman*.
- Lipman, Jacob Goodale, Harry C. McLean**, and *H. Clay Lint*, oxidation of sulphur in soils as a means of increasing the availability of mineral phosphates, A., i, 784.
- Lippmann, Edmund Oskar von**, occurrence of indole and secatole, A., i, 540. history of specific gravity, A., ii, 125. the age of the alchemists, J. I. and I. Hollandus, A., ii, 525.
- Lipscomb, G. F.**, and *George Augustus Hulett*, a study of double salts in standard cells, A., ii, 122. a calomel standard cell, A., ii, 213.
- Livingstone-Learmouth, Agnes**, and *Barbara Martin Cunningham*, the effect of trinitrotoluene on women workers, A., i, 697.
- Llord y Gamboa, Ramon**, carbonic acid in mineral waters, A., ii, 196.
- Lloyd, Dorothy Jordan**, the relation of excised muscle to acids, salts, and bases, A., i, 617.
- Lloyd, H. H., John B. Wiesel**, and *Harry Clary Jones*, conductivities of certain organic acids in absolute ethyl alcohol, A., ii, 210.
- Lock, Ludwig**. See *Hermann Leuchs*.
- Lockemann, Georg**. See *Hans Reckleben*.
- Lockyer, (Sir) Norman**, and *H. E. Goodson*, the oxy-hydrogen flame spectrum of iron, A., ii, 121.
- Loeb, Jacques**, the rôle of electrolytes in the diffusion of acid into the egg of *Fundulus*, A., i, 186. calcium in permeability and irritability, A., i, 186. the salts required for the development of insects, A., i, 189.
- Loeb, Jacques**, and *McKeen Cattell*, the influence of electrolytes on the diffusion of potassium out of the cell and into the cell, A., i, 185.
- Loeb, Jacques**, and *W. F. Ewald*, chemical stimulation of nerves, A., i, 691.

- Loeb, Jacques**, and **Hardolph Wasteneys**, the apparent change of the osmotic pressure of the cell-contents with the osmotic pressure of the surrounding medium, A., i, 185.
- Löb, Walther**, enzymes. X. attempts to synthesise disaccharides by means of enzymes, A., i, 296.
- the action of rays on colloids, A., ii, 5.
- Löffler, Wilhelm**, urea formation in the isolated liver of warm-blooded animals, A., i, 771.
- Löffler, Wilhelm**. See also **Markus Guggenheim**.
- Loew, [Carl Benedict] Oscar**, the behaviour of the cell nucleus towards different poisons, A., i, 589.
- Loew, Oscar**. See also **Rudolf Emmerich**.
- Löwenhamn, Erik**. See **Hans von Euler**.
- Loewy, A.** See **Richard Wolfenstein**.
- Lohmann, Clifford**, pure sodium chloride, A., ii, 529.
- Lokietek, J.** See **Frédéric Reverdin**.
- Lombroso, Ugo**, metabolism of amino-acids in the organism. IX., A., i, 101.
- enzymic actions of blood on dextrose.
- I. Destruction and condensation of dextrose by normal blood, A., i, 612.
- enzymic actions of blood on dextrose.
- II. Destruction and condensation of dextrose by blood circulated, with or without dextrose, in the surviving pancreas, A., i, 686.
- enzymic actions of blood on dextrose.
- III. Destruction and condensation of dextrose by blood circulated, with or without dextrose, in the surviving intestine, A., i, 686.
- enzymic actions of blood on dextrose.
- IV. Enzymic properties of the blood of the depancreatised dog, before and after circulation (with dextrose) in the intestine of the same animal, A., i, 770.
- enzymic actions of blood on dextrose.
- V. Glycolysis of blood circulated with dextrose in the liver, spleen, kidney, or muscle, A., i, 770.
- Lombroso, Ugo**, and **Camillo Artom**, the formation of carbohydrates from amino-acids in the isolated liver, A., i, 524.
- Lo Monaco, Domenico**, general reaction of amino-acids in the animal organism; decomposition of proteins and formation of carbamide, A., i, 867.
- Long, John Harper**, a simple cell for the determination of hydrogen-ion concentration, A., ii, 287.
- a possible source of error in colorimetric observations, A., ii, 327.
- Long, John Harper**, and **Frederic Fenger**. reaction of the pancreas and other organs, A., i, 525.
- Long, John Harper**, and **Mary Hull**, assumed destruction of trypsin by pepsin and acid, A., i, 770.
- Long, Frank Stevenson**, obituary notice of, T., 370.
- Longman, J.**, preparation of aromatic aldehydes, A., i, 315.
- preparation of therapeutic compounds (chloralisovaleramide and butyl-chloraliso-aleramide), A., i, 548.
- Loomis, Albert G.**, and **Herman Schlundt**, dielectric constants of some compounds of vanadium, A., ii, 72.
- Loomis, Howard**, modification of the gas burette of the Parr total carbon apparatus, A., ii, 492.
- Loomis, Nathaniel Edward**, potentials of calomel and hydrogen electrodes, A., ii, 7.
- Loon, C. van**. See **Jacob Böeseken**.
- López**. See **Caballero y López**.
- López-Pérez, Leopoldo**, salicylaldehyde and diphenols in the investigation of the oxidising power of animal organs, A., i, 232.
- influence of nitrogenous matter on the lactic fermentation of dextrose by the *Bacillus bulgaricus*, A., i, 529.
- López-Suárez, J.** See **Phabus A. Levene**.
- Lorenz, Fr.** See **Albert Beutell**.
- Lorenz, Richard**, a slag containing manganese, A., ii, 254.
- the atomic theory. V. The doctrine of corresponding states and the calculation of the volume at the absolute zero from the liquid condition, A., ii, 311.
- the atomic theory. VI. The calculation of the space occupied by molecules in close packing, with remarks on the known methods, A., ii, 311.
- metal fogs and pyrosols, A., ii, 464.
- Lorenz, Richard**, and **K. Hiege**, the effect of light on solid silver chloride and bromide, A., ii, 207.
- Lorenz, Richard**, and **Alexander Höchberg**, the electrical conductivity of fused silver haloids, A., ii, 285.
- the internal friction of fused silver haloids, A., ii, 296.
- determinations of the density of fused silver haloids, A., ii, 323.
- Lorenz, Richard**, **A. Liebmann**, and **Alexander Höchberg**, the molecular condition of fused silver chloride, A., ii, 324.
- Lorenz, Richard**, and **I. Posen**, the atomic theory. VII. Space-filling and mobility of organic ions, A., ii, 312.

- Loria, Stanislaw**, the branching point of the thorium series, A., ii, 169.
the volatilisation of radium-C, A., ii, 465.
- Losanitch, Milivoj S.**, a new safety-valve, A., ii, 388.
- Losee, J. R.** See *Donald D. van Slyke*.
- Lough, W. G.** See *Victor Caryl Myers*.
- Louis, David Alexander**, obituary notice of, T., 385.
- Lovelace, Benjamin Franklin, Joseph Christie Whitney Frazer, and E. Miller**. vapour pressure of solutions; lowering of the vapour pressure of water produced by dissolved potassium chloro ide, A., ii, 218.
- Lowy, Alexander**, an automatic pipette, A., ii, 533.
- Lubrzynska, (Miss) Eva**, the condensation of pyrrole-2-aldehyde with ketones, T., 1118.
- Lubs, Herbert A.**, and *Solomon Farley Acree*, tautomerism. XIX. Tautomerism of the amides, A., i, 468.
- Lubs, Herbert A.**, and *William Mansfield Clark*, some new indicators for the colorimetric determination of hydrogen-ion concentration, A., ii, 44.
- sulphonephthaleins as indicators for the colorimetric estimation of hydrogen-ion concentration, A., ii, 570.
- Lubs, Herbert A.** See also *William Mansfield Clark*.
- Luce, E.** See *Maurice François*.
- Luden, Georgine**, changes in the cholesterol content of the blood of goats following cholesterol feeding alone, treatment with Röntgen rays alone, and cholesterol feeding, combined with treatment with Röntgen rays and subsequent castration, A., i, 858.
- Ludewig, Paul**, an arrangement for demonstrating some laws of radioactive change, A., ii, 283.
- Ludwik, P.** change of the internal friction of metals with temperature, A., ii, 222.
- the harness of metallic alloys, A., ii, 328.
- Lumsden, Colin Henry**. See *John Theodore Hewitt*.
- Luna Nogueras, Rafael**, thermal reactions of aluminium, A., ii, 104.
- Lusk, Graham** See *Frank C. Gephart*.
- Lutz, O. E.**, transformation of maleic acid into succinic derivatives with the help of pyridine bases, A., i, 73.
- Lyle William G.** See *Casimir Funk*.
- Lynde, C. J.**, and *J. V. Dupré*, osmosis in soils, A., i, 303.
- M.**
- Maase, Carl**, and *Hermann Zondek*, estimation of uric acid in blood, A., ii, 160.
- Maass, Otto**, an automatic vacuum pump, A., ii, 96.
- Macallum, Archibald Bruce**. See *Casimir Funk*.
- MacArthur, C. G.**, solubility of oxygen in salts, solutions and in the hydrates of these salts, A., ii, 42⁴.
- influence of strong salt solutions on the spontaneous oxidation of pyrogallol, ferrous sulphate, and levulose, A., ii, 407.
- MacArthur, C. G.**, and *L. V. Burton*, brain cephalin. II. Fatty acids, A., i, 612.
- MacArthur, C. G.** See also *J. E. Darrah*.
- Macbeth, Alexander Killen**, colorations produced by some organic nitro-compounds, with special reference to tetranitromethane, II., A., ii, 67.
- Macbeth, Alexander Killen**. See also *Charles Wesley Addy*, and *Peter Joseph Brannigan*.
- McBeth, I. G.**, decomposition of cellulose in soils, A., i, 592.
- McCall, A. G.**, *F. M. Hildebrandt*, and *E. S. Johnston*, the adsorption of potassium by the soil, A., i, 304.
- McCaskey, Donald**. See *Casimir Funk*.
- McCay, David**, sugar of the blood and in the urine, in varying conditions of health, in the Bengali, A., i, 858.
- McCay, LeRoy Wiley**, and *N. Horrell Furman*, use of hydrofluoric acid in the separation of some heavy metals from tin, antimony, tungsten, and molybdenum by means of the electric current, A., ii, 273.
- McClelland, John Alexander**, and *R. Fitzgerald*, photo-electric discharge from leaves, A., ii, 508.
- McClendon, J. F.**, improved gas chain methods of estimating hydrogen-ion concentration in blood, A., ii, 360.
- McClendon, J. F.**, and *C. A. Magoon*, improved Hasselbalch hydrogen electrode and a combined tonometer and hydrogen electrode, together with rapid methods of estimating the buffer value of blood, A., ii, 513.
- McClugage, Harry Bruce**. See *Oliver Kamm*.
- McCollum, Elmer Verner**, and *Marguerite Davis*, the cause of the loss of nutritive efficiency of heated milk, A., i, 183.
- the dietary deficiencies of rice, A., i, 184.

- McCollum, Elmer Verner, and Marguerite Davis**, the essential factors in the diet during growth, A., i, 184.
- McCollum, Elmer Verner, and Cornelius Kennedy**, dietary factors operating in the production of polyneuritis, A., i, 451.
- McCollum, Elmer Verner, Nina Simmonds, and Walter Fitz**, nature of the dietary deficiencies of the wheat embryo, A., i, 522.
- relation of the unidentified dietary factors, the fat-soluble *A*, and water-soluble *B*, of the diet to the growth-promoting properties of milk, A., i, 860.
- McCollum, Elmer Verner**. See also *Edwin Bret Hart*.
- McCord, Carey Pratt**, the occurrence of pituitrin and adrenaline in foetal pituitary and suprarenal glands, A., i, 188.
- McCradden, Francis H., and C. S. Sargent**, occurrence and estimation of creatine in the urine, A., ii, 358.
- influence of the colour from the sodium picrate in the estimation of creatinine in blood and urine, A., ii, 587.
- Macdonald, James Leslie Auld**. See *James Colquhoun Irvine*.
- McDonnell, C. C., and C. M. Smith**, artificial mimetite (lead chlor-arsenate), A., ii, 532.
- arsenates of lead, A., ii, 620.
- McDonnell, C. C.** See also *R. C. Roark*.
- MacDougall, Frank Henry**, equation of state for gases and liquids, A., ii, 215.
- Macéevskaja, (Mlle.) I. I.** See *S. S. Nametkin*.
- McIntosh, Douglas**, bromocamphor-sulphonic acid and oxonium compounds, A., i, 269.
- McIntosh, Douglas, and R. Edson**, colloidal solid solutions, A., ii, 230.
- McIntosh, Douglas**. See also *R. Edson, H. S. Reid, and Percy Waentig*.
- MacIntyre, W. H.**, method for the estimation of the immediate lime requirements of soils, A., ii, 64.
- McKenzie, Alexander, and Stanley Charles Bate**, the displacement of halogen in optically active phenyl-halogenoacetic acids by the anilino-group, A., i, 44.
- McKenzie, Alexander, and (Miss) Nellie Walker**, experiments on the Walden inversion. X. Displacement reactions with *l*-phenylbromoacetic acid, A., i, 44.
- McKie, (Miss) Phyllis Violet**. See *Kennedy Joseph Priveé Orton*.
- McKinney, Asa**. See *Frank Curry Mathers*.
- McLaren, D.** See *N. C. Qua*.
- MacLean, Hugh**, glycolysis in diabetic blood with a method for the estimation of blood sugar, A., i, 613.
- McLean, Harry C.** See *A. W. Blair, and Jacob Goodale Lipman*.
- McLean, Jay**, thromboplastic action of cephalin, A., i, 693.
- MacLean, Reginald M.** See *Victor John Harding*.
- McLennan, John Cunningham**, the single-line spectra of magnesium and other metals and their ionising potentials, A., ii, 166.
- the ionisation potentials of magnesium and other metals and their absorption spectra, A., ii, 591.
- McLennan, John Cunningham, and David A. Keys**, the ionisation of metallic vapours in flames, A., ii, 590.
- McLennan, John Cunningham, and Andrew Thomson**, the Bunsen flame spectra of metallic vapours, A., ii, 590.
- McMaster, LeRoy, and A. C. Magill**, normal ammonium salts of some organic acids and their substituted derivatives. VI., A., i, 707.
- McMullen, T. C.**, methyl ester of *o*-benzoylfenoic acid, A., i, 560.
- McNair, James B.**, poisonous principle of poison oak (*Rhus diversiloba*, T. and G.), A., i, 622.
- MacNider, William de B.**, potassium in normal and nephropathic kidney cells, A., i, 191.
- Madelung, Walter, and F. Hager**, new derivatives of di-indyl, A., i, 840.
- Madinaveitia, Antonio**, chemical composition of pyocyanin, A., i, 605.
- Madinaveitia, Antonio, and Adolfo González**, separation of cholesterol and *iso*-cholesterol, A., ii, 585.
- Madinaveitia, Antonio, and J. Sorolla**, additive products of oxalic acid, A., i, 629.
- Mächling, Ch.** See *Hermann Staudinger*.
- Maeilmann, Hans**, aliphatic tertiary α -hydroxy-acids, A., i, 368.
- Maestro, L.**, estimation of urea and extractives in urine by the xanthhydrone method, A., ii, 162.
- Magasanik, J.** See *Helmut Scheibler*.
- Magath, Thomas B.** See *John C. Hessler*.
- Magill, A. C.** See *LeRoy McMaster*.

- Magnanini, Gaetano, and A. Venturi,** an improvement of Hofmann's audiometer, A., ii, 427.
- Magnus, Alfred,** the specific heat of platinum and of diamond at high temperatures, A., ii, 79.
- Magoon, C. A.** See *J. F. McClendon.*
- Maillard, Louis C.**, synthesis of mixed cycloglycylglycines by the action of glycerol on mixtures of α -amino-acids, A., i, 505.
- the formation of pyridine bases from proteins, A., i, 514.
- synthesis of humin substances by the action of amino-acids on reducing sugars, A., i, 597.
- Maio, (Mlle.) Clelia di**, physico-chemical studies on wines; electrolytic dissociation constant of wines, A., ii, 54.
- Majima, Rikō,** the main constituent of Japanese lac. V. Constitution of hydrourushiol, A., i, 36.
- Majima, Rikō, and Ikuya Nakamura,** isohydrourushiol and its next lower homologue, A., i, 36.
- Majima, Rikō, and Yoshitaro Okazaki,** 2:3 dihydroxytoluene (*isohomocatechol*) and the nitro-derivatives of its methyl ethers, A., i, 808.
- Majima, Rikō, and Joshihide Tahara,** the main constituents of Japanese lac. VI. Synthesis of hydrourushiol, A., i, 38.
- Makower, Walter,** the efficiency of recoil of radium-D from radium-C, A., ii, 547.
- Makower, Walter.** See also *A. B. Wood.*
- Mallinckrodt, Edward, jun., and A. D. Alt,** estimation of small amounts of ethyl alcohol and water in ethyl ether for anaesthesia, A., ii, 583.
- Mallinson, H. C.**, estimation of soluble nitrocellulose in guncotton, A., ii, 400.
- Manasse, Ernesto,** ilvaita and other minerals from Perda Niedda, Oriddese (Sardinia), A., ii, 43.
- Manceau.** See *Villedieu.*
- Mandal, Hj.,** ethylaminochromi-compounds, A., i, 202.
- ethylaminochromi-compounds. II. Chloropentaethylaminochromic salts, A., i, 792.
- Mandersloot, Willem Cornelis,** the breadth of spectral lines, A., ii, 361.
- the emission spectrum of diatomic compound gases in the remote ultra-red, A., ii, 362.
- Maniulova, (Mlle.) V. S.** See *S. S. Nametkin.*
- Maniwa, H.**, principle extracted from amatscha, A., i, 621.
- Mann, Harold Hart, and V. G. Patwardhan,** chemistry and physiology of the leaves of the betel-vine (*Piper betle*) and of the commercial bleaching of betel-vine leaves. II, A., i, 782.
- Mannessier, Anna,** 2:3-dithiosulphidine, A., i, 415.
- Mannich, Carl, and W. Geilmann,** decomposition of methyl alcohol by heated copper, A., i, 362.
- Manuelli, Antonio,** solubility of gypsum in sea-water, A., ii, 251.
- Maquenne, Léon,** action of sucrose on the alkaline copper solution, A., ii, 56.
- comparative action of sucrose and invert-sugar on the cupropotassic solution, A., ii, 156.
- the estimation of reducing sugars in the presence of an excess of sucrose, A., ii, 156.
- the presence in industrial sugars of reducing substances other than invert-sugar, A., ii, 202.
- March, A.**, electron theory of the metals, A., ii, 366.
- Marcon, G.** See *Paul Pfeiffer.*
- Marcusson, Julius,** chemical structure of natural asphalte, A., ii, 627.
- Marden, John W.,** solubilities of the sulphates of barium, strontium, calcium, and lead in ammonium acetate solutions at 25°, and a criticism of the present methods for the separation of these substances by means of ammonium acetate solutions, A., ii, 270.
- Marden, John W., and (Miss) Mary Violet Dover,** solubilities of several substances in mixed non-aqueous solutions, A., ii, 418.
- Marden, John W.** See also *(Miss) Mary Violet Dover.*
- Marica, E.** See *Ernesto Puxeddu.*
- Marino, Luigi, and R. Becarelli,** subhaloid compounds of some elements. II. So-called bismuth subchloride and subbromide, A., ii, 190.
- subhaloid compounds of some elements. III. and IV. The so-called bismuth subbromide, A., ii, 190.
- subhaloid compounds of some elements. V. and VI. So-called bismuth subchloride, A., ii, 334.
- Marker, J.** See *Louis Baumann, and B. Kramer.*
- Maron, David,** preparation of benzimidazoles containing an ethylaminogroup, A., i, 337.

- Marotta, D.** See *Gennaro Calcagni*.
- Marriott, Williams McKim**, estimation of the carbon dioxide tension in the alveolar air, A., ii, 268.
- Marriott, Williams McKim**. See also *John Howland*.
- Marshall, Arthur**, and *Gordon Peace*, the vapour pressure of glyceryl trinitrate (nitroglycerin), T., 298; A., i, 366.
- Marshall, Charles Robertshaw**, the pharmacological action of tetra-alkyl ammonium compounds. II. and III., A., i, 192.
- Marshall, Charles Robertshaw**, and *Elizabeth Gilchrist*, interaction of methylene iodide and silver nitrate, A., i, 197.
- Marshall, Eli Kennerly, jun.** See *J. G. Mateer*.
- Marshall, M. J.** See *R. F. Buttan*.
- Martin, Ernst**, aluminium ; aluminates, A., ii, 139.
- Martin, Henri**, mercury ureometer of simple construction, A., ii, 62.
- Martin, H. C.**, *o*-benzoylbenzoyl chloride, A., i, 481.
- Martin, John Albert**, citric acid by fermentation, A., i, 704.
- Marusawa, T.**, agglutination of colloidal systems, A., ii, 476.
- Marusawa, T.** See also *Isidor Traube*.
- Mascarelli, Luigi**, and (*Miss*) *Daria Deliperi*, scission of racemic alcohols by means of camphoric anhydride, A., i, 555.
- Maschhaupt, J. G.**, the solubility of the phosphoric acid in powdered Thomas slag on repeated extraction with water containing carbon dioxide, A., i, 112.
- the antagonistic action of salts in plants, A., i, 781.
- Mason, Thomas G.**, carbohydrates of the musci, A., i, 875.
- Masoni, Giulio**, action of manganese salts on vegetation, A., i, 589.
- Masse, René**, and *Henri Leroux*, the estimation of phenol in the crude phenols from coal tar, A., ii, 650.
- Massol, Gustave**, and *A. Faucon*, the absorption of ultra-violet rays by the bromo-derivatives of methane, A., ii, 507.
- Mateer, J. G.**, and *Eli Kennerly Marshall, jun.*, urease content of certain beans, with special reference to the jack bean, A., i, 589.
- Mathers, Frank Curry**, and *Asa McKinney*, electro-deposition of smooth, solid lead from lead nitrate solutions, A., ii, 10.
- Mathews, Albert Prescott**, relation of molecular cohesion to surface tension and gravitation ; with a method of determining "a" of van der Waals' equation without assumptions, and the explanation of the meaning of the constants in the surface tension law of Eötvös and the latent heat formulae of Dieterici and Mills, A., ii, 600.
- Matthews, Donald J.**, amount of phosphoric acid in the sea-water of Plymouth Sound, A., ii, 635.
- Mauguin, E.** See *E. Terres*.
- Mawrow, Franz**, and *M. Nikolow*, molybdenum semipentoxide and its salts, A., ii, 256.
- phosphomolybdic compounds. III. Complex hypophosphomolybdenum-semipentoxide-molybdate acids and their salts, A., ii, 322.
- Mawrow, Franz**, and *J. Zonew*, chromic hypophosphite, A., ii, 332.
- Maxwell, Harold L.** See *Bonnibel Artis*.
- Mayer, Fritz**, and *Trudi Oppenheimer*, naphthylacetic acids. I., A., i, 816.
- Mayer, Fritz**. See also *Georg Kalischer*.
- Mayer, Woldemar**. See *Eugur Wedekind*.
- Mayerhofer, Ernst**. See *Walther Hausmann*.
- Mayr, C.** See *Frederick Pearson Treadwell*.
- Mazé, Pierre**, the mechanism of the exchanges between the roots and the soil ; exchanges between the different tissues of the plant, A., i, 455, 456.
- Mazzaron, A.**, sensitive method for the examination of oils, A., ii, 160.
- Mazzucchelli, Arrigo**, and *G. Sabatini*, polarimetric measurements of certain complex uranyl salts, A., i, 14.
- Meade, George P.**, and *Joseph B. Harris*, gravimetric estimation of reducing sugars in cane products, A., ii, 455.
- Meader, J. W.**, cephaeline ethyl ether, A., i, 834.
- Means, A. H.**, new mineral occurrences from the Tintic District, Utah, A., ii, 192.
- Means, James H.** See *Willey Denis*.
- Meichel, Lukas von**. See *Emil Fischer*.
- Medhi, Vishnu Ram**, and *Edwin Roy Watson*, the effect of additional auxochromes on the colour of dyes. I. Phthalocyanine and benzene dyes, A., ii, 2.
- Meek, David B.**, and *Edwin Roy Watson*, the colour of polyhydroxyanthraquinone dyes, T., 544; A., ii, 364.

- Meek, David B.** See also *Edwin Roy Watson*.
- Meigen, Wilhelm**, the catalytic hardening of fats by means of nickel oxides, A., ii, 95.
- Meillière, [Jean Pierre] Gédéon**, industrial arsenical poisoning; detection of arsenic in hair, etc., A., ii, 447.
- Meisenheimer, Jakob**, nitrogenous constituents of yeast, A., i, 236.
- Meissner, Richard**, pharmacological investigations of the surviving intestine, A., i, 453.
- Melander, Karl H. A.**, the calculation of the dissociation constants of extremely weak acids and bases, A., ii, 379.
- Meldrum, Robert**, solidifying and melting point of anethole, A., i, 36.
- benzene: its solidifying and melting points, A., i, 553.
- Meloche, C. C.**, the derivatives of pereric oxide. II, A., ii, 101.
- Meloche, C. C.** See also *Victor Lenher*.
- Melón, Adolfo**, nitrophenanthrenes, A., i, 138.
- considerations on von Baeyer's strain theory, A., ii, 388.
- Meltzer, Samuel James**. See *Israel Simon Kleiner*, and *B. S. Kline*.
- Mendel, Lafayette Benedict**. See *Thomas Burr Osborne*.
- Meneguzzi, Rudolfo**, antagonistic action between hydrogen sulphide and salts of heavy metals, A., i, 452.
- Menéndez, Laureano**, analysis of ferrocérium, A., ii, 580.
- Menschutkin, Boris N.**, interaction of benzoyl chloride and m-xylene in presence of haloids of various metals of the second group, A., ii, 181.
- Merck, [Carl] Emanuel**, preparations of esters of hydrazinemonocarboxylic acid, A., i, 130.
- preparation of acyldysalicyl derivatives of theobromine, A., i, 500.
- preparation of compounds of quinine derivatives and dialkylbarbituric acids, A., i, 568.
- preparation of salicyloyltheobromine, A., i, 568.
- preparation of acyld derivatives of the xanthine series, A., i, 571.
- pure colchicine, A., i, 833.
- Merck, F.** See *Kurt Hess*.
- Mertes, A. T.**, and *Herman Fleck*, some new organic compounds of vanadium, A., i, 139.
- Merton, Thomas Ralph**. See *John William Nicholson*.
- Mervini, Luizi**. See *Maurizio Padua*.
- Merwin, Herbert Eugene**. See *John Johnston, Eugen Posnjak, G. A. Rankin*, and *Robert B. Sosman*.
- Metcalf, Wilmot Vernon**, an interpretation of van der Waals' equation from the point of view of volume determined by equilibrium of pressures, A., ii, 85.
- van der Waals' equation, A., ii, 221.
- Metz, A.** See *Adolf Sieverts*.
- Meunier, Jean**, detection of small quantities of selenium and its distinction from arsenic, A., ii, 641.
- Meurs, G. J. van**, equilibria in systems in which water, a phenol, and a base constitute the components, A., ii, 304.
- Meyer, E.** See *Alfred Thiel*.
- Meyer, Ernst [Sigismund Christian] von**, derivatives of o-aminophenol and *a*-amino- γ -naphthol, A., i, 160.
- Meyer, Ernst von**, [with Hugo Sahland and Paul Rassfeld], derivatives of o-aminophenol and *a*-amino- γ -naphthol, A., i, 160.
- Meyer, G.**, and *H. Stocker*, surface tension of fresh surfaces of pure water and salt solutions, A., ii, 416.
- Meyer, G.** See *Andreas Smits*.
- Meyer, Gustave M.** See *Phæbus A. Levene*.
- Meyer, Hans**, reactions in energetic solvents. I. The direct replacement of sulpho groups by chlorine, A., i, 134.
- reactions in energetic solvents. II. The direct replacement of nitro-groups by chlorine and a new method of chlorination, A., i, 135.
- Meyer, Hans**, and *Erich (Ritter) von Beck*, 2:4:6-triaminopyridine, A., i, 163.
- Meyer, Julius**, the freezing point of benzene as a fixed point in thermometry, A., ii, 80.
- constitution of manganic compounds, A., ii, 483.
- Meyer, K. F.** See *S. H. Hurwitz*.
- Meyer, Stefan**, the life-period of ionium and some consequences that follow its determination, A., ii, 511.
- Meyerhof, Otto**, influence of certain capillary-active substances on enzyme activity, A., i, 91.
- Meyer-Levi**. See *Combe*.
- Michael, Arthur, E. Scharf**, and *K. Voigt*, rearrangement of isobutyl bromide into *tert*.-butyl bromide, A., i, 361.
- Middleton, A. R.**, and *H. L. Miller*, detection of nickel in cobalt salts A., ii, 580.

- Mietting, Hildegard**, the absorptive power of aluminium oxide, A., ii, 463.
- Mikeska, L. A.** See *James R. Bailey*.
- Milbauer, Jaroslav**, red lead, A., ii, 33.
- rapid analysis of the so-called antimony glass, A., ii, 153.
- the action of oxygen on metallic oxides at high temperatures and pressures, A., ii, 528.
- Milbauer, Jaroslav**, and *Kamil Kohn*, chrome yellow. I. The system $\text{PbSO}_4 + \text{K}_2\text{CrO}_4 \rightleftharpoons \text{PbCrO}_4 + \text{K}_2\text{SO}_4$, A., ii, 441.
- Mildner, H.** See *Josef Tillmans*.
- Milius, H. C.**, and *Nicolaas Schoorl*, chemico-analytical definition of the sugars, A., i, 711.
- Miller, C. O.** See *W. B. D. Penniman*.
- Miller, C. W.** See *Alonzo Englebert Taylor*.
- Miller, E.** See *Benjamin Franklin Lovelace*.
- Miller, H. L.** See *A. R. Middleton*.
- Miller, Oswald**, thermo-isomerisation of naphthalinic acid [1:2:4-hydroxy-naphthaquinone]. VI., A., ii, 19.
- influence of concentration on isomerisation. VII., A., ii, 20.
- Miller, Raymond J.** See *C. A. Smith*.
- Miller, W.**, dibutyramide and dipropyl-triazole with its salts, A., i, 203.
- Miller, W. S.** See *Edwin Bret Hart*.
- Millosevich, Federico**, a lotrichite from Rio (Elba), A., ii, 191.
- Mills, James Edward**, molecular attraction. XII., A., ii, 14.
- Milroy, Thomas Hugh**, the action of hypochlorites and allied substances on proteins and their behaviour on injection, A., i, 866.
- Minges, G. A.** See *Percy E. Brown*.
- Mink, Frieda**. See *Wilhelm Autenrieth*.
- Minnig, H. D.**, separation and estimation of aluminium and glucinium by the use of acetyl chloride in acetone, A., ii, 52.
- Minot, George R.**, the effect of chloroform on coagulation, A., i, 100.
- Minovici, Stefan**, and *V. Th. Bentz*, a synthesis of 1:4-diazines [pyrazines] and of new derivatives of chloral and bromal, A., i, 79.
- Minovici, Stefan**, and *Emil Grozea*, action of mercuric salts on aluminium foil; application of the reaction to the detection of mercury in chemical analysis and toxicology, A., ii, 199.
- Minovici, Stefan**, and (*Mme.*) *Th. Zénovici-Erémie*, some new oxidation derivatives of cholesterol, A., i, 142.
- Mitchell, C. W.** See *William Salant*.
- Mitchell, H. H.**, feeding experiments on the substitution of protein by definite mixtures of isolated amino-acids, A., i, 690.
- Mitchell, H. H.**, and *R. A. Nelson*, the preparation of protein-free milk, A., i, 190.
- Mitchell, H. H.**, *H. A. Shonle*, and *Harry Sands Grindley*, origin of the nitrates in the urine, A., i, 451.
- Mix, Herm.**, differentiation of "benzine" [light petroleum] and benzene, A., ii, 54.
- Mixer, William Gilbert**, the thermochemistry of silicon; heat of combination of silica with water, A., ii, 517.
- Miyake, Kiichi**, the change of ammonium isethionate by heating, A., i, 7.
- toxic action of soluble aluminium salts on the growth of the rice plant, A., i, 590.
- Miyake, Kiichi**. See also *Thorburn Brailsford Robertson*.
- Möhla, Richard**, the products of the decomposition of aluminium phenoxides by heat, A., i, 390.
- Moellendorff, Wilh. von**, the storing of acid dyes in the animal organism, a physical process, A., i, 529.
- Mörner, (Graf) Carl Thore**, compounds derived from proteins by energetic treatment with nitric acid. II., A., i, 512.
- Mohr, Ernst**, Baeyer's tension theory and the structure of the diamond, A., ii, 137.
- Mohrmann, Gerhard**, sulphonation of benzene. II., A., i, 135.
- Moir, James**, new methods of testing for molybdenum, A., ii, 346.
- analysis of columbium-tantalum minerals, with some new tests for columbium, tantalum, and titanium, A., ii, 348.
- Molengraaff, G. A. F.**, the occurrence of nodules of manganese in mesozoic deep-sea deposits from Borneo, Timor and Rotti; their significance and mode of formation, A., ii, 42.
- Moles, Enrique**, the absolute density of hydrogen bromide gas, A., ii, 314.
- the density of hydrogen bromide gas; revision of the atomic weight of bromine, A., ii, 526.
- Molisch, Hans**, microchemistry of plants. I. A readily crystallisable tannin in *Dionaea muscipula*, A., i, 195.

- Molliard, Marin**, the evolution of oxygen, arising from the reduction of nitrates by green plants, A., i, 871.
- Mom, C. P.**, urea estimation by means of urease, A., i, 358. quantitative estimation of urea, A., ii, 203.
- Mom, C. P.** See also *Jacob Böeseken*.
- Momose, Goro**, the effect of the ingestion of urea, sodium lactate, and sodium hydrogen carbonate on the reaction of the blood and the composition of the alveolar air in man, A., i, 230. inositol of brain and its preparation, A., i, 523.
- Mond, Robert**, ruthenium dicarbonyl, A., ii, 443.
- Monhaupt, M.**, determination of the melting points of fats, A., ii, 586.
- Monnier, A.**, use of titanium trichloride in volumetric analysis, A., ii, 444. the use of methylene-blue as a reagent in chemical analysis; application of the process to the detection and estimation of perchlorates in Chili salt-petre, A., ii, 639.
- Montmartini, Clemente**, and *F. Bovini*, variation with the temperature of the reciprocal influence of cinchona alkaloids on the rotatory powers, A., i, 416.
- Montmolin, Guillaume de**, polymerisation of ethylene, A., i, 625.
- Montuschi, Pietro**, influence of nitrogen metabolism on laevorotatory and synthetic glycerophosphate subcutaneously injected, A., i, 453.
- Moore, H. C.**, rapid control method for the estimation of sulphur in pyrites cinder, A., ii, 263.
- Mooy, W. J. de**, estimations by means of critical mixture points, A., ii, 392.
- Mooy, W. J. de**. See also *Arnold Frederik Holleman*.
- Moran, Robert C.** See *Treat Baldwin Johnson*.
- Morgan, Gilbert Thomas**, and *Joseph Reilly*, non-aromatic diazonium salts. V. Diazo-derivatives of aminotriazoles, T., 155; A., i, 294.
- Morgan, John Livingston Rutgers**, and *Clarke Edwin Davis*, the properties of mixed liquids. I. Sulphuric acid-water mixtures, A., ii, 224.
- Morgan, John Livingston Rutgers**, and *Gustav Egloff*, the properties of mixed liquids. II. Phenol-water and triethylamine-water mixtures, A., ii, 296.
- Morgan, John Stanley**, periodic evolution of carbon monoxide, T., 274; A., i, 305. a laboratory circulating pump, A., ii, 25.
- Morgulis, Sergius**, and *Everett W. Fuller*, can carbon dioxide in seawater be directly estimated by titration? A., ii, 150.
- Morozova, (Mlle.) O. N.** See *S. S. Nametkin*.
- Morris, J. Lucien**, new salt of uric acid and its application to the analysis of uric acid and phenol, A., ii, 458.
- Morse, Max**, is autolysis an autocatalytic phenomenon? A., i, 299.
- Mosenthal, Herman O.**, the interpretation of a positive nitrogen balance in nephritis, A., i, 192.
- Mosimann, W.**, and *Josef Tambor*, synthesis of 2:3-dihydroxyphenylacetic acid, A., i, 734. o-vanillin, A., i, 734. attempts to synthesise naringenin, A., i, 822.
- Moulton, C. R.**, units of reference for basal metabolism and their interrelations, A., i, 348.
- Mouneyrat, Antoine**, preparation of arseno-phosphorus derivatives, A., i, 228. preparation of m-amino-p-hydroxyphenylarsinic acid, A., i, 445.
- Mouren, Charles**, and *Adolphe Lepape*, the rare gases in natural gases, A., ii, 389, 481.
- Mühle, G.** See *Carl Liebermann*.
- Müller, Arno**, carvone, A., i, 319. uranyl formate, A., i, 367. the explosive property of uranyl nitrate, A., ii, 143.
- Müller, Ernst**. See *Theodor Curtius*.
- Müller, J. Howard**, influence of autoxidation on cholesterol esters, A., i, 692. comparison of the results obtained by the colorimetric and gravimetric estimations of cholesterol, A., ii, 541.
- Müller-Hoessly, E.**, estimation of salicylic acid in jams, etc., A., ii, 353.
- Müller-Thurgau, H.**, and *Adolf Osterwalder*, influence of partial decalcification and of temperature on the decomposition of the acids of wine, A., i, 531. formation of acetaldehyde in wine during and after fermentation, A., i, 531. prevention of alcoholic fermentation in fruit and grape juice by means of sulphurous acid, A., i, 532. formation of acetaldehyde in fruits, A., i, 584.

- Mukherjee, Kshitish Chandra**, and **Edwin Roy Watson**, dyes derived from phenanthraquinone, T., 617; A., i, 564.
- Mukherjee, Kshitish Chandra**. See also **Edwin Roy Watson**.
- Muller, Emile**. See **Fritz Fichter**.
- Muller, Joseph Auguste**, the electrolysis of an aqueous solution of potassium orthosulphoan imonite [potassium thiocantimonite], and the constitution of this compound, A., ii, 137.
- the analysis of a mixture of alkali sulphides, thiosulphates and dithionates, A., ii, 147.
- Mumm, Otto** mellitic acid and its nitrogenous derivatives, A., i, 402.
- Munch, J. C.** See **Alfred W. Homberger**.
- Mungioli, Lodovico**, new pyridazinones (ketotetrahydro-*pyridazines*), A., i, 78.
- Murakami, Takejiro**, metallography of the system thallium-selenium, A., ii, 34.
- Murat, Marcel**, and **J. Durand**, the elimination of picric acid by the urine, A., i, 193.
- Murat, Marcel**. See also **Paul Sabatier**.
- Murlin, John Raymond**, and **J. A. Riche**, blood-fat in relation to heat production and depth of narcosis, A., i, 177.
- Murphy, Janet S.** See **James Flack Norris**.
- Murray, B. L.**, electrolytic estimation of mercury in mercury oleates, A., ii, 271.
- electrolytic estimation of mercury in mercury salicylates, A., ii, 272.
- electrolytic estimation of bismuth in bismuth β -naphthol, A., ii, 274.
- Murray, Ruby Rivers**, abnormal adsorption by filter paper, A., ii, 602.
- Mussgnug, F.** See **Ludwig Vanino**.
- Mussmann, F.** See **Friedrich Kehrmann**.
- Myers, Chester Newton**. See **W. F. Clarke**.
- Myers, Victor Caryl**, simple method for the estimation of nitrogen in urine, A., ii, 148.
- Myers, Victor Caryl**, and **Cameron V. Bailey**, Lewis and Benedict method for the estimation of blood sugar, with some observations obtained in disease, A., i, 300.
- Myers, Victor Caryl**, **Morris Seide Fine**, and **W. G. Lough**, uric acid, urea, and creatinine of the blood in early and late nephritis, A., i, 192.
- Mylius, Franz**, and **Karl Hüttner**, rapid estimation of sulphur in coal gas, A., ii, 571.
- Mylius, Werner**, derivatives of β - and γ -mercapto-propylamine [amino-propyl and -isopropyl mercaptans], A., i, 633.
- Myrick, R. T.** See **Joseph Christie Whitney Frazer**.
- N.**
- Nacken, Richard**, growth of crystal polyhedra in their fusions, A., ii, 130.
- Nagai, Nagayoshi**, **Akira Ogata**, and **Kametaro Takata**, influence of sodium and halogenated alcohols [alkyl haloids] on aldehydes, ketones, etc., A., i, 728.
- Nagasaki, S.**, estimation of small quantities of dextrose in urine, A., ii, 399.
- Nagel, Oskar**, geochemical metal adsorption, A., ii, 225.
- Nakamura, Ikuya**. See **Rikō Majima**.
- Name, Ralph Gibbs van**, and **D. U. Hill**, the rates of solution of metals in ferric salts and in chromic acid, A., ii, 608.
- Nametkin, S. S.**, and (*Mlle.*) **V. A. Chochrjakova**, Konovalov's "hydroxyfenchone," A., i, 217.
- Nametkin, S. S.**, [with (*Mlles.*) **V. S. Manuilova**, **T. I. Macéevskaja**, and **L. N. Abakumovskaja

Nametkin, S. S., and (*Mlle.*) **O. N. Morozova**, isomerisation of cyclopentylecarbinol on conversion into halogen derivatives, A., i, 208.

Neal, O. Dexter, bottle for the iodometric titration of copper, A., ii, 493.

Neber, Peter. See **Carl Bülow**.

Neidle, Mark, temperature effect in dialysis and a simple rapid dialyser, A., ii, 475.

Neidle, Marks, and **Jacob Barab**, studies in dialysis. I. Dialysis of a colloidal solution of hydrated chromic oxide in chromic chloride, A., ii, 603.

Neidle, Marks, and **Joshua C. Witt**, oxidation and reduction without the addition of acid. II. The reaction between stannous chloride and potassium dichromate, A., ii, 256.

Nelson, John Maurice, and **Edward G. Griffin**, adsorption of invertase, A., i, 516.

Nelson, John Maurice. See also **H. A. Fales**, **Edward G. Griffin**, and **John H. Northrop**.

Nelson, R. A. See **H. H. Mitchell**.

Nelson, V. E., indole in cheese, A., i, 540.

colour reactions for indole and scatole, A., ii, 360.

Neogi, Pañchānan, and **Tārinicharan Chowdhuri**, conversion of aliphatic nitrites into nitro-compounds, T., 701; A., i, 626.**

- Nernst, [Hermann] Walther**, dissociation of gaseous acetic acid and phosphorus pentachloride; correction, A., ii, 418.
experimental determination of chemical constants, A., ii, 469.
- Nestell, R J., and E. Anderson**, estimation of sulphur dioxide and sulphur trioxide in flue gases, A., ii, 268.
- Neuberg, Carl**, yeast protein, A., i, 513. hydrotopic phenomena. I., A., ii, 555.
- Neumann, L.** See *Julius von Braun*.
- Neville, Francis Henry**, obituary notice of, T., 386.
- Newbery, Edgar**, overvoltage tables. I. Cathodic overvoltages, T., 1051; A., ii, 598.
overvoltage tables. II. Anodic overvoltages, T., 1066; A., ii, 598.
overvoltage tables. III. Overvoltage and the periodic law, T., 1107.
overvoltage tables. IV. The theories of overvoltage and passivity, T., 1359.
- Newbery, Edgar**, and **John Norman Pring**, the reduction of metallic oxides with hydrogen at high pressures, A., ii, 256.
- Newington, F. H.**, estimation of free a kai hydroxide in soap, A., ii, 197.
- Newlands, Susan H.** See *Sydney Alexander Kay*.
- Nicaise, Ch.** See *Jules Émile Verschafelt*.
- Nicholson, John William**, and **Thomas Ralph Merton**, the distribution of intensity in broadened spectrum lines, A., ii, 461.
- Nicolardot, Paul**, the corrosion of French, Bohemian, and German glass vessels, A., ii, 618.
- Nicolet, Ben H.**, the condensation of aldehyde diacetates and of phenylhydrazones with 2-thionydantoin, A., i, 163.
- Nicolet, Ben H.**, and **Leonard Merritt Liddle**, occurrence of azelaic acid as a product of the spontaneous oxidation of fats, A., i, 463.
- Niementowski, Stefan von**, and **Ed. Suchard**, 8-hydroxyquinolinecarboxylic acids and their derivatives; dihydroxyanthraquinone-3:7-diquinoline, A., i, 422.
- Nierenstein, Maximilian**. See *Harry Fitztibbom Dean*.
- Niggemann, Hermann**. See *Franz Fischer*.
- Niggli, Paul**, the structure of crystals, A., ii, 300.
- Nikolow, M.** See *Franz Mawrow*.
- Nitzberg, Charles**. See *Max Polonovski*.
- Noble, (Sir) Andrew**, obituary notice of, T., 432.
- Nodder, Gerald**. See *Raphael Heber Callow*.
- Noelting, Emilio**, dyes derived from aminophenylarsinic acid, A., i, 857.
- Noelting, Emilio**, and **A. Kempf**, some colour reactions of triphenylmethane derivatives, A., i, 43.
- Noelting, Emilio**, and **A. Kregczi**, the nitration of benzylidethylamine, A., i, 803.
some dyes derived from aminobenzylidethylamines, A., i, 803.
- Noelting, Emilio**, and **H. Steinle**, attempts to prepare analogues to the indazoles from closed-chain compounds, by means of nitro- and bromonitro-o-anisidines, A., i, 88.
- Nogueras**. See *Luna Nogueras*.
- Nollau, Edgar H.** See *G. E. Buckner*.
- Nolte, Otto**, use of centrifugal apparatus in chemical analysis, A., ii, 146.
estimation of nitroen by Kjeldahl's method, A., ii, 341.
- Nordenson, Harald**, influence of light on the stability of colloidal solutions, A., ii, 90.
- Normann, Wilhelm**, comparative experiments on the hydrogenation of oils, using metallic nickel and nickel oxides, A., i, 705.
the hardening of fats, A., ii, 384.
- Norris, James Flack**, [with *Katherine E. Rooney, Janet S. Murphy*, and *Carolyn F. Dodge*], organic molecular compounds, A., i, 380.
- Norris, James Flack**, **Muriel Watt**, and **Ruth Thomas**, reaction between alcohols and aqueous solutions of hydrochloric and hydrobromic acids, A., i, 461.
- North, Henry Briggs**, and **C. B. Conover**, action of thionyl chloride on sulphides, A., ii, 28.
decomposition of mineral sulphides and sulpho-salts by thionyl chloride, A., ii, 102.
- Northrop, John H.**, and **John Maurice Nelson**, the phosphoric acid in starch, A., i, 373.
- Norton, John F.**, and **H. I. Knowles**, a study of indicators for the determination of temporary hardness in water, A., ii, 345.
- Nossowsitsch, H.** See *Adolf Grün*.
- Nowak, Curt A.**, acid ratio: a new method for estimating the proteolytic strength of germinated grain in technical analysis, A., ii, 63.

Noyes, William Amos, and **Laurence C. Johnson**, supposed effect of the form of container on the density of a gas, A., ii, 375.

O.

Oberfell, G. G. See **George A. Burrell**.
Obpacher, Heinz. See **Wilhelm Prandtl**.
O'Brien, H. R. See **Frank Burnett Dains**.
Ochs, Rudolf. See **Wilhelm Schlenk**.
Oddo, Bernardo, phthaleins. IV. Bisbenzeneazophenolphthalein, A., i, 87.

products of autoxidation of indoles : indoxylic ethers, A., i, 502.

Oddo, Giuseppe, water in its different states. III. Molecular weight of water in solution in certain anhydrides and in solutions in general, A., ii, 312.
water in its different states. IV. Monomeric water and the possibility of existence of monomeric life different from actual dimeric life, A., ii, 313.

Odén, Sven, a new method for the determination of the distribution of the particles in suspensions, A., ii, 301.

Echsner de Coninck, [François] William, barium oxalate, A., i, 369.
densities of solutions of uranium nitrate in water, in alcohol, and in some acids, A., ii, 143.
some reactions of calcium, strontium, zinc, and magnesium carbonates, A., ii, 482.

Echsner de Coninck, William, and **Chauvenet**, reduction of selenic acid, A., ii, 429.

Echsner de Coninck, William, and **Gérard**, atomic weight of cadmium, A., ii, 33.
atomic weight of bismuth, A., ii, 189.

Oefele, Felix von, the periodic system of the elements, A., ii, 284.

Oelsner, Alice. See **Alfred Koch**.
Oesterreichischer Verein für Chem. und Metall. Produktion, preparation of carbamide nitrate from cyanamide, A., i, 126.

Ogata, Akira, the colour reaction of adrenaline with dichromates, A., i, 665.

Ogata, Akira, and **Chujiro Ito**, benzyl methyl ketone and phenylsulphonol, A., i, 654.

Ogata, Akira. See also **Nagayoshi Nagai**.

Ogg, A., and **F. Lloyd Hopwood**, a critical test of the crystallographic law of valency volumes ; the crystalline structure of the alkali sulphates, A., ii, 594.

Olsson, Erik, products formed by the addition of methyl iodide to the diphenylethylthiocarbamides, A., i, 753.

new method of extracting lactic acid [for its estimation], A., ii, 542.

Okada, Seizaburo, the reaction of bile, A., i, 190.
the optimal reaction for pepsin, A., i, 516.

the optimal conditions for the proteolytic action of taka-diastase, A., i, 517.

Okazaki, Yoshitaro. See **Rikō Majima**.

Olig, A., Marcusson-Schilling's modification of Bömer's method for the detection of phytosterol, by precipitation with digitonin, A., ii, 499.

Oliveri-Mandalà, E., influence of temperature on the electrical conductivity of certain feeble acids, A., ii, 367.

catalysis of azoimide. I., A., ii, 615.

Olivier, Simon Cornelis Johannes, dynamic researches on Friedel and Crafts' reaction, A., i, 23.
dynamic researches on the formation of some aromatic sulphones under the influence of aluminium chloride in a medium of benzenesulphonyl chloride, A., ii, 93.

a photochemical decomposition of some acid chlorides, A., ii, 592.

Olson, A. O. See **William Hammett Hunter**.

Omarini, L., action of diazonium salts on anthranol, A., i, 87.

Omeliansky, V. L., methane fermentation of ethyl alcohol, A., i, 453.

Onnes, Heike Kamerlingh, methods and apparatus used in the cryogenic laboratory. XVI. The neon cycle, A., ii, 14.

Onnes, Heike Kamerlingh, and **Claude Auguste Crommelin**, isothermals of monatomic gases and of their binary mixtures. XVII. Isothermals of neon and preliminary determinations concerning the liquid condition of neon, A., ii, 13.

Onnes, Heike Kamerlingh, **Claude Auguste Crommelin**, and **(Miss) E. I. Smid**, isothermals of diatomic substances and their binary mixtures. XVIII. The isothermal of hydrogen at 20° from 60 to 100 atmospheres, A., ii, 13.

- Onnes, Heike Kamerlingh, and Sophus Weber,** experiments with liquid helium; the measurement of very low temperatures. XXV. Determination of the temperatures which are obtained with liquid helium, especially in connexion with measurements of the vapour pressure of helium, A., ii, 13.
- Onnes, Heike Kamerlingh.** See also *W. H. Keesom.*
- Onodera, Naosuke,** the effects of electrolytes, non-electrolytes, alkaloids, etc., on the urease of soja-bean, A., i, 227.
- the urease of the soja-bean and its co-enzyme, A., i, 228.
- Onslow, Herbert,** the development of the black markings on the wings of *Pieris brassicae*, A., i, 525.
- Opitz, Hermann.** See *Max Klostermann.*
- Oppolzki, Stanislaus,** and *T. Zwislocki,* salts of *o*- and *p*-nitrophenylacetic esters, A., i, 815.
- Oppenheimer, Trudi.** See *Fritz Mayer.*
- Orange, Lionel.** See *Charles Dorée.*
- Orr, John Boyd.** See *David Burns.*
- Orstrand, C. E. van,** and *Frederic P. Dewey,* the diffusion of solids, A., ii, 298.
- Orthner, R.** See *Emil Baur.*
- Orton, Kennedy Joseph Previté,** and (*Miss*) *Phyllis Violet McKie,* the estimation of mixtures of paracetaldehyde and acetal, T., 184; A., ii, 354.
- Orueta, Domingo de,** and *Santiago Piña de Rubies,* presence of platinum in Spain, A., ii, 144.
- Osaka, Yukichi,** the adsorption of strong electrolytes, A., ii, 297.
- Osborne, Thomas Burr, Edna L. Ferry, Lafayette Benedict Mendel,** and *Alfred John Wakeman,* the resumption of growth after long-continued failure to grow, A., i, 184.
- the stability of the growth-promoting substance in butter fat, A., i, 231.
- amino-acid minimum for maintenance and growth, as exemplified by further experiments with lysine and tryptophan, A., i, 522.
- effect of the amino-acid content of the diet on the growth of chickens, A., i, 771.
- Osborne, Thomas Burr,** and *Lafayette Benedict Mendel,* quantitative comparison of cas-inogen, lactalbumin, and edestin for growth or maintenance, A., i, 690.
- Ostenberg, Z.** See *S. H. Hurwitz.*
- Osterhout, Winthrop John Vanleuven,** the measurement of toxicity, A., i, 195.
- Osterhout, Winthrop John Vanleuven,** decrease of permeability produced by antiseptics, A., i, 704.
- determination of additive effects, A., i, 704.
- Ostersetzer, Alfons.** See *Moritz Kohn.*
- Osterwalder, Adolf.** See *H. Müller-Thurgau.*
- Osterwalder, René.** See *Fritz Fichter.*
- Ostromisslenski, Ivan I.,** new methods of preparation of erythrene, A., i, 2.
- condensation of alcohols and aldehydes in presence of dehydrating agents: mechanism of the process, A., i, 4.
- definition, classification, and evaluation of caoutchoucs. I. Two new constants of caoutchoucs, A., i, 54.
- new methods of obtaining divinyl, isoprene, piperylene, and dimethyl-erythrene, A., i, 241.
- conversion of the cyclobutane derivatives, bromocyclobutane and cyclobutanol, into erythrene; mechanism of the removal of different radicles from the 1- and 4-positions, A., i, 242.
- analysis, purification, and qualitative reactions of isoprene; structure of the benzene nucleus, A., i, 243.
- transference of the elements of halogen hydacid from one organic radicle to another; mechanism of the action of chlorine on trimethylethylene [β -methyl- $\Delta\beta$ -butylene], A., i, 244.
- preparation of esters of unsaturated alcohols from aldols, A., i, 247.
- new syntheses of caoutchouc and its homologues, A., i, 273.
- synthesis of the *s*-bromide of erythrene caoutchouc, of the caoutchouc itself, and of cauprene, A., i, 273.
- structure of caoutchoucs, A., i, 274.
- polymerisation of ethylenic compounds and mechanism of the conversion of vinyl bromide into the bromide of erythrene caoutchouc, A., i, 275.
- mechanism of the conversion of isoprene into caoutchouc and conversion of β -myrcene into caoutchouc, A., i, 276.
- cold vulcanisation of caoutchouc by means of sulphur, or trinitrobenzene, or benzyl peroxide, A., i, 276.
- mechanism of the action of amines and metallic oxides on the vulcanisation of caoutchouc, A., i, 277.
- vulcanisation of caoutchouc by means of halogenated compounds; mechanism of vulcanisation, A., i, 278.
- vulcanisation of caoutchouc by molecular oxygen, ozone, or ozonides of organic compounds, A., i, 278.

- Ostromisslenski, Ivan I.**, preparation of vulcanised caoutchouc coloured with organic pigments, A., i, 279.
nature of the elastic and plastic conditions of matter, A., ii, 178.
- Ostromisslenski, Ivan I.**, and (*Mlle.*) *I. M. Kelbasinskaja*, two new constants for caoutchoucs: elasticity point and fatal temperature, A., i, 55.
- Ostromisslenski, Ivan I.**, and *S. S. Kelbasinskij*, condensation of mixtures of acetaldehyde and alcohol to erythrene, A., i, 5.
- Ostromisslenski, Ivan I.**, and *F. F. Koschelev*, synthesis of natural caoutchouc by way of β -myrcene, A., i, 274.
- Ostromisslenski, Ivan I.**, and *P. N. Rabinovitsch*, new method of preparing piperylene, A., i, 4.
- Ostwald, Wilhelm**, absolute system of colours, A., ii, 205.
foundation of a scientific theory of pigments. I. The fundamental properties of pigments and the size of the particles, A., ii, 205.
- Ostwald, Wolfgang**, kinetics of the multirotation of gelatin sols, A., ii, 121.
- Oswald, Adolf**, crystallisation of human serum albumin, A., i, 513.
iodoprotein, A., i, 514.
glucosamine hydrochloride from a mucoid present in ascitic fluid, A., i, 514.
- Otagawa, Tatsuro**. See *William Arthur Haward*.
- Ott, Isaac**, and *John C. Scott*, the action of animal extracts on the flow of bile, A., i, 190.
- Overman, O. R.** See *Arthur Wesley Browne*.
- Oxley, A. E.**, the transformations of pure iron, A., ii, 438.

P.

- Paal, Carl**, [with *Josef Gerum*, *Ferd. Biebler*, and *Christian Goes*], catalytic action of colloidal metals of the platinum group. XV. Oxidation of carbon monoxide in the presence of colloidal platinum, iridium, and osmium, A., ii, 307.
- Paal, Carl**, [with *Carl Küster*, and *Carl Roth*], diaryl derivatives of sorbitol and dulcitol, A., i, 787.
- Paal, Carl**, and *Anton Schwarz*, [catalytic action of colloidal platinum on the union of hydrogen and oxygen], A., ii, 307.
- Paal, Carl**, [with *Kurt Zahn* and *Max Kinscher*], $\alpha\alpha$ -diarylglycerols, A., i, 812.
- Pacini, Remo**. See *Mario Betti*.
- Paderi, Cesare**, behaviour of gluconic acid in the organism, A., i, 453.
- Padoa, Maurizio**, temperature-coefficients of the action of monochromatic light on chlorine-hydrogen mixtures, A., ii, 592.
- Padoa, Maurizio**, and *Fernanda Corsini*, velocity of diffusion and hydration in solution, A., ii, 88.
- Padoa, Maurizio**, and *Luigi Mervini*, temperature-coefficients in the action of monochromatic light on photographic plates and papers, A., ii, 592.
- Padoa, Maurizio**, and *A. Zazzaroni*, temperature-coefficients of phototropic transformations in monochromatic light. II., A., ii, 508.
- Pagliani, Stefano**, Dulong and Petit's law, A., ii, 12.
- internal temperature of sulphur furnaces, A., ii, 28.
- entropy in condensed substances and its variations during changes of state. II. Inorganic compounds, A., ii, 291.
- Pahle, Kristian**. See *Heinrich Goldschmidt*.
- Palet, Luciano P. J.**, a new sensitive reaction for apomorphine, A., ii, 587.
- Palladin, Vladimir I.**, and *D. Sabinin*, decomposition of lactic acid by killed yeast, A., i, 620.
- Palmer, Leroy S.**, xanthophyll, the principal natural yellow pigment of egg-yolk, body-fat, and blood-serum of the hen; the physiological relation of the pigment to the xanthophyll of plants, A., i, 186.
physiological relation of the carotin pigments of plants to those of the cow, horse, sheep, goat, pig, and hen, A., i, 863.
- Paneth, Fritz**, conception of element and atom in chemistry and radiology, A., ii, 240.
- Paneth, Fritz**. See also *Georg von Hevesy*.
- Panopolus, Georg**, new process for the preparation of reactive lead peroxide, A., ii, 328.
- Pantanelli, Enrico**, mechanism of absorption of salts in plants, A., i, 871.
- Papaconstantinou, B.** See *Demetrius E. Tsakalotos*.
- Parker, Harry George**, a crucible "fork," A., ii, 426.

- Parr, Samuel Wilson**, an acid-resisting alloy to replace platinum in the construction of a bomb calorimeter, A., ii, 38.
- Parsons, Arthur L.**, proustite from Cobalt, Ontario, A., ii, 258.
- Paschen, Friedrich**. See *Rudolf Friedrich Weinland*.
- Passarge, Willibald**. See *Wilhelm Traube*.
- Patch, Richard Harkness**. See *Elmer Peter Kohler*.
- Patek, Josef**, estimation of zinc by Schaffner's method, A., ii, 578.
- Patterson, Thomas Law**, obituary notice of, T., 387.
- Patterson, Thomas Stewart**, the influence of solvents, etc., on the rotation of optically active compounds. XXI. The relationship of the rotatory powers of ethyl tartrate, isobutyl tartrate, and isobutyl diacetyltartrate, T., 1139.
- the influence of solvents, etc., on the rotation of optically active compounds. XXII. Rotation-dispersion, T., 1176.
- the influence of solvents, etc., on the rotation of optically active compounds. XXIII. Anomalous rotation-dispersion and dynamic isomerism, T., 1204.
- Patwardhan, V. G.** See *Harold Hartmann*.
- Paul, Ludwig**, action of nitric acid on colophony and the related autoxidation of the latter, A., i, 218.
- Paul, R.** See *Robert Kremann*.
- Paulus, M. C.** See *E. J. Schaeffer*.
- Pauly, Hermann**, constitution of the salts of phenol-aldehydes. II., A., i, 150.
- Pavlov, G. S.** See *Antony G. Doroshevski*.
- Peace, Gordon**. See *Arthur Marshall*.
- Peacock, David Henry**, rotatory power and refractivity. II. The rotatory powers, refractivities, and molecular solution volumes of camphor, bromo-camphor, and ethyl tartrate in certain solvents, A., ii, 4.
- Pecker, Henri**, diazo-reaction for the detection of picramic acid in urine, A., ii, 353.
- identification of picric acid in urine, A., ii, 456.
- Peczalski, Thadée**, variations of the specific heats of gases with the pressure, A., ii, 216.
- Peffer, E. L.** See *H. D. Holler*.
- Peirce, George**, the configuration of some of the higher monosaccharides, A., i, 18.
- Pekarskaja, (Mlle.) G. F.** See *Michael A. Rakuzin*.
- Pellaton, Maurice**, physical constants of chlorine, A., ii, 245.
- Pellet, Henri**, the total destruction of pentoses during alcoholic fermentation, A., i, 780.
- use of yeast for the inversion of sucrose and the estimation of the latter polarimetrically or chemically, A., ii, 157.
- preparation of very active salicylated yeast for the inversion of sucrose, A., ii, 157.
- use of different substances in the preparation of invertase solution; possible sources of error, A., ii, 157.
- estimation of raffinose by means of different yeasts, A., ii, 157.
- inversion of sucrose by invertase; use of salicylated yeast, A., ii, 351.
- estimation of raffinose in the presence of sucrose, A., ii, 399.
- estimation of lead as lead sulphite, A., ii, 450.
- Pember, F. R.**, and *Burt Laws Hartwell*, activity and availability of insoluble nitrogen in fertilisers as shown by chemical and vegetation tests, A., i, 460.
- Penniman, W. B. D.**, *W. W. Randall*, *C. O. Miller*, and *L. H. Enslow*, hydrolysis of ethylsulphuric acid and of the assay of aromatic sulphuric acid, U.S.P., A., ii, 650.
- Pereira, A. Cardoso**, purification of the residues of the ether and chloroform extracts in the forensic detection of the alkaloids, A., ii, 162.
- Perelstein, Mendel**, and *Isak Abelin*, sensitive clinical method for the detection of mercury in urine, A., ii, 151.
- Perelstein, Mendel**. See also *Isak Abelin*.
- Perkin, Arthur George**, colouring matter of cotton flowers. III., T., 145; A., i, 280.
- a product obtained in the manufacture of natural indigo, T., 210; A., i, 337.
- Perkin, Arthur George**. See also *Hanns Bleuler*.
- Perkin, William Henry, jun.**, cryptopine and protopine, T., 815.
- Perley, G. A.** See *Charles James*.
- Pertusi, C.**, action of metallic magnesium on tin, antimony, and arsenic sulphides, A., ii, 53.
- Pesci, Leone**, oxidation of thiadiphenylamine, A., i, 289.

- Peset, Juan**, and **Rogelio Buendía**, a new colour reaction for alkaloids and similar substances, A., ii, 502.
- Peter, Alfred Meredith**, stability of silver fulminate under water, A., i, 378.
- Peters, Charles Adams**, and **V. Sauchelli**, succinic acid as a standard, A., ii, 260.
- Peters, E.** See **Adolf Sieverts**.
- Petit, Paul** [*Émile*], the reactions between several of the salts contained in [natural] waters at the boiling point A., ii, 32.
- Petrenko-Kritschenko, Parel Iv.**, periodic variation of the properties of organic compounds, A., i, 221.
- Petters, J.** See **J. V. Dubsky**.
- Pettibone, Chauncy J.** *Vallette*, and **Cornelia Kennedy**, translocation of seed protein reserves in the growing corn seedling, A., i, 875.
- Pettijohn, Earl**. See **C. F. Sidener**.
- Pfeiffer, Otto**, detection of phytosterol and cholesterol by means of digitonin, A., ii, 541.
- Pfeiffer, Paul**, crystals as molecular compounds, A., ii, 228.
- Pfeiffer, Paul**, [with **S. Braude, R. Fritsch, W. Halberstadt, Georg Kirchhoff, J. Kléber**, and **P. Wittkop**], photochemical synthesis of indole derivatives, A., i, 327.
- Pfeiffer, Paul**, [with **S. Braude, J. Kléber, G. Marcon**, and **P. Wittkop**], colour dimorphism with stilbene derivatives, A., i, 24.
- Pfeiffer, Paul**, and **Franz Wittka**, theory of the process of dyeing, A., i, 495.
- Pfeiffer, Paul**, and **J. Würgler**, influence of neutral salts on the solubility of amino-acids, A., i, 713.
- Pfeiffer, Paul**, [with **J. Würgler**, and **Franz Wittka**], behaviour of amino-acids towards neutral salts in aqueous solution, A., i, 125.
- Pfeiffer, Theodor**, and **W. Simmernacher**, action of sulphur on plant production, A., i, 196.
- comparative experiments on the utilisation of nitrogen and phosphoric acid by plants, A., i, 622.
- Pfenninger, F.** See **Hermann Staudinger**.
- Phelps, I. K.**, and **Herbert Wilkens Daudt**, Kjeldahl method for estimating nitrogen, A., ii, 265.
- Philip, Arnold**, the zinc-copper couple hypothesis of brass corrosion, A., ii, 433.
- Philip, James Charles**, and **Arthur Bramley**, the action of water on cupric thiocyanate, T., 597; A., i, 549.
- Philip, James Charles**, and **Arthur Bramley**, influence of glycerol, dextrose, alkali nitrates and sulphates, and ammonium salts on the solvent power of water, A., ii, 89.
- Philipov, O.**, constitution of Gustavson's hydrocarbons, vinyltrimethylene and ethylenetrifluoromethylene, A., i, 551.
- Philippe, Ernst**, estimation of caffeine in tea by the sublimation method, A., ii, 358.
- Phillips, Alexander Hamilton**, new zinc phosphates from *Salmo*, British Columbia, A., ii, 569.
- Phillips, S. B.**, rapid method for the estimation of fat in powders, A., ii, 353.
- Phipps, Thomas E.** See **Eugene Paul Schoch**.
- Pickard, Joseph Allen**, the oxygen content of iron and steel, A., ii, 623.
- Pickering, Spencer Percival Umfreville**, compounds of iron, manganese, lead, and the metals of Group II., T., 235; A., i, 306.
- Pictet, Amé**, and **Tsan Quo Chou**, the formation of pyridine and isoquinoline bases from casein, A., i, 226.
- action of methylal on tetrahydro-papaverine, A., i, 418.
- Pictet, Amé**, and (*Mme.*) **I. Lerczynska**, action of aluminium chloride on petroleum, A., i, 785.
- Pictet, Amé**, **Louis Ramseyer**, and **O. Kaiser**, some hydrocarbons contained in coal, A., ii, 800.
- Pictet, Amé**, and **Pierre Stebelin**, formation of pyridine bases by condensation of ketones and amides, A., i, 571.
- Pigorini, Luciano**, amino-acids and the formation of silk in the larva of *Bombyx mori*; observations and experiments with aminoacetic acid, A., i, 525.
- Pilat, St. von**. See **G. von Kozicki**.
- Pilz, Ferdinand**, estimation of potassium in fertilisers, A., ii, 51.
- estimation of the total phosphoric acid in spodium, A., ii, 644.
- Pilz, Ferdinand**. See also **Celichowski**.
- Piña de Rubies, Santiago**, presence of platinum in Spain, A., ii, 106.
- the presence of nickel in native platinum, A., ii, 442.
- Piña de Rubies, Santiago**. See also **Domingo de Orueta**.
- Pincas, Heinrich**. See **Fritz Sommer**.
- Pinnow, Johannes**. See **L. Wolfram**.
- Pisani, Felix**, a new method of estimating fluorine, A., ii, 393.
- Pisarshevski, L.**, and **N. Averkiev**, catalytic method for the separation of solid iodine from solutions, A., ii, 184.

- Pisarshevski, L.**, and *S. Tjelni*, electrolytic method of obtaining solid iodine from solution, A., ii, 185.
- Pistor, A. E.** See *Oskar Baudisch*.
- Pitz, Walter**, action of sulphur and calcium sulphate on certain higher and lower forms of plants, A., i, 870.
- Pitz, Walter**. See also *Elmer Verner McCollum*.
- Piutti, Arnaldo**, explosive mixture of phosphorus and liquid air, A., ii, 30.
- Piva, A.**, direct estimation of carbon monoxide in mixtures containing unsaturated hydrocarbons, A., ii, 343.
- Piva, A.** See also *Mario Giacomo Levi*.
- Plattner, Josef**, hydrolytic products of bimolecular isovaleryl cyanide and a new preparation of isobutyrtartaric acid, A., i, 204.
- Plaut, Edward**. See *Marston Taylor Bogert*.
- Plenz, F.** See *E. Terres*.
- Plimmer, Robert Henry Aders**, the analysis of proteins. I. The estimation of arginine by decomposition with alkali, A., ii, 460.
- Plonskier, J. A.**, receiver for vacuum distillations, A., ii, 415.
- Plüss, M.**, the viscosity and density of molten metals and alloys, A., ii, 294.
- Plummer, H. C.**, the boiling points of homologous compounds, A., ii, 550.
- Plunkett, Geraldine**. See *Hugh Ryan*.
- Pognan, and Benjamin Sauton**, jaundice produced by the absorption of picric acid; analysis of the blood and urine under this condition, A., ii, 54.
- Pohl, A.**, mechanical purification of alcohol by paraffin, A., i, 362.
- Pohle, Friedrich**. See *Otto Wallach*.
- Poklop, Joseph**. See *Casimir Funk*.
- Polanyi, Michael**, adsorption of gases (vapours) by a solid non-volatile adsorbent, A., ii, 474.
- Pollitt, A. A.** See *L. G. Radcliffe*.
- Pollock, James Arthur**, relation between the thermal conductivity and the viscosity of gases with reference to molecular complexity, A., ii, 78.
- Pollok, James Holmes**, obituary notice of T., 389.
- Polonovski, Max**, the alkaloids of the calabar bean. V. Action of phenylcarbinimide: phenyl homologues of eserine and geneserine, A., i, 284.
- Polonovski, Max**, and *Charles Nitzberg*, the alkaloids of the calabar bean. IV. Partial synthesis of eserine and geneserine, A., i, 221.
- Pomeranz, H.**, preparation of aromatic nitroamino-compounds and their substitution products, A., i, 382.
- Pomilio, Umberto**, electrolytic reduction of sulphuric acid in alcoholic solution and stability of ethyl alcohol towards cathodic hydrogen, A., ii, 598.
- Ponzio, Giacomo**, azohydroxamic acids. II., A., i, 609.
- Pooth, Peter**, abietic acid, A., i, 210.
- Popa, D. E.**, estimation of iodine and bromine in saline waters from petroleum-bearing strata, A., ii, 339.
- Popesco, Alin**. See *J. Vintilesco*.
- Popp, Max**, estimation of phosphoric acid soluble in citric acid in basic slag by the iron citrate method, A., ii, 266, 342.
- Porter, Alfred William**, von Babo's law and Kirchhoff's equation for the latent heat of dilution, A., ii, 83.
- Willard Gibbs's adsorption coefficient, A., ii, 87.
- Porter, Lyman E.** See *Philip Embury Browning*.
- Porter, Ralph E.** See *Francis C. Frary*.
- Portner, A.** See *Nicolai N. Voroshcov*.
- Posen, I.** See *Richard Lorenz*.
- Posnjak, Eugen**, Eugene Thomas Allen, and *Herbert Eugene Merwin*, sulphides of copper, A., ii, 103.
- Posternak, Swigel**, the $\Delta\zeta$ - and $\Delta\delta$ -isomerides of stearolic acid, A., i, 544.
- Potměšil, R.** See *Emil Votoček*.
- Potter, Ralph S.**, and *R. S. Snyder*, amino-acid nitrogen of soil, A., i, 240.
- carbon and nitrogen changes in soil variously treated: soil treated with calcium carbonate, ammonium sulphate, and sodium nitrate, A., i, 459.
- Poulton, Edward Palmer**, the supposed acid intoxication of diabetic coma, A., i, 190.
- Povarnin, G.**, swelling of hides in presence of hydrogen ions, A., ii, 180.
- valency of the elements. III. and IV., A., i, 281; ii, 184.
- Powell, A. R.** See *Walter R. Schoeller*.
- Powell, J. R.**, gas pressure regulator, A., ii, 312.
- Powis, Frank**, the coagulation of colloidal arsenious sulphide by electrolytes and its relation to the potential difference at the surface of the particles, T., 734; A., ii, 521.
- the transference of electricity by colloidal particles, A., ii, 408.
- Powis, Frank**, and *Henry Stanley Raper*, creatinuria in children, A., i, 866.
- Praetorius, Max**. See *Martin Freund*.

- Prandtl, Wilhelm**, oxidation of manganeseous to manganic salts by nitrous acid, A., ii, 621.
- Prandtl, Wilhelm**, and **W. von Blochin**, [with **Heinz Obpacher**], hetero-poly-acids containing vanadium. V. Compounds which contain molybdic and selenious acids, A., ii, 333.
- Prandtl, Wilhelm**, and **Hans Hecht**, hetero-poly-acids containing vanadium. IV. Compounds containing vanadic and tungstic acids, A., ii, 257.
- Prásek, E.** See **Karl Landsteiner**.
- Pratt, Wallace E.**, iron ore on Calam-bayanga Island, Philippine Islands, A., ii, 43.
- Pratt, Wallace E.**, and **Victor E. Lednicky**, iron ore in Surigao Province, Philippine Islands, A., ii, 43.
- Preckel, F.** See **Joh. Friedrich Hoffmann**.
- Price, Thomas Slater**, and **Sidney Albert Brazier**, complex metallic ammines. II. Additive compounds formed from trans-dichlorodiethylenediaminecobaltic chloride, A., i, 121.
- Price, Thomas Slater**, **Sidney Albert Brazier**, and **Arthur Samuel Wood**, preparation of diethylamine on a large scale in the laboratory, A., i, 309.
- Prdeaux, Edmund Brydges Rudhall**, preparation of ethylene dibromide, A., i, 541.
- the neutralisation curve of boric acid, A., ii, 98.
- the use of partly neutralised mixtures of acids as hydron regulators, A., ii, 514.
- Prince, Alexander L.** See **Henry G. Barbour**.
- Pring, John Norman**. See **Edgar Newbery**.
- Pringsheim, E. G.**, physiological theory of chlorophyll, A., i, 56.
- Pringsheim, Hans**, and **Stefanie Lichtenstein**, crystalline polysaccharides from glycogen, A., i, 374.
- Prins, H. J.**, a kinetic view of catalysis, A., ii, 182.
- the law of mass action as a special case of a general reaction law, A., ii, 232.
- Prior, George Thurland**, the meteoric stones of Launton, Warbreccan, Cronstad, Daniel's Kuil, Khairpur, and Soko-Banja, A., ii, 633.
- the genetic relationship and classification of meteorites, A., ii, 635.
- Prior, George Thurland**. See also **George Frederick Herbert Smith**.
- Pritzker, J.**, rapid method for the estimation of sulphates in wine, A., ii, 446.
- Procter, Henry Richardson**, and **Donald Burton**, the swelling of gelatinous tissues, A., i, 439.
- Procter, Henry Richardson**, and **John Arthur Wilson**, the acid-gelatin equilibrium, T., 307; A., i, 438.
- theory of vegetable tanning, T., 1327.
- Prud'homme, Maurice**, [law of thermal expansion of liquids], A., ii, 414.
- deductions from the Eötvös-Ramsay law, A., ii, 600.
- Puchner, Heinrich**, constitution of ultramarine, A., ii, 140.
- Pukall, Wilhelm**, water-glass and alkali silicates, A., ii, 322.
- Punnell, P. W.** See **Henry Clapp Sherman**.
- Pusch, Lotte**, time reaction of the neutralisation of carbonic acid and the true dissociation constant of carbonic acid, A., ii, 477, 557.
- Putnam, W. S.** See **Paul Bell Davis**.
- Puxeddu, Ernesto**, behaviour of certain metallic oxides towards phenylhydrazine, A., i, 292.
- reducing properties of phenylhydrazine, A., i, 292.
- reduction by means of phenylhydrazine of azo- and bisazo-derivatives of phenols and aromatic hydroxy-aldehydes, A., i, 435.
- Puxeddu, Ernesto**, and **E. Marica**, constitution and stereochemical isomerism of polymerides of phenols with propenyl side-chains, A., i, 807.
- Puxeddu, Ernesto**, and **L. Scaffidi**, polymerides of anethole and *isosafrole*, A., i, 806.
- Pyman, Frank Lee**, derivatives of glyoxaline-4(or 5)-formaldehyde and glyoxaline-4(or 5)-carboxylic acid; a new synthesis of histidine, T., 186; A., i, 335.

Q.

- Qua, N. C.**, and **D. McLaren**, action of a solution of potassium hydroxide in alcohol on oxalic esters, A., i, 709.
- Quagliariello, G.**, physico-chemical investigations on animal liquids. XI. Chemical reactions of the bile, A., i, 527.
- Quagliariello, G.**, and **G. Becchini**, physico-chemical investigations on animal liquids. X. Variation of the refractive index of blood serum during dialysis, A., i, 446, 520.
- Quagliariello, G.**, and **G. Craifaleanu**, chemical composition of intestinal mucus. I. and II., A., i, 523.

Quagliariello, G., and C. Ventura, velocity of decomposition of lactose by the "Bulgarian ferment." I. and II., A., i, 619, 699.
Quartaroli, Alfredo, magneto-chemistry : applications to analytical chemistry, A., ii, 123.
paramagnetism and chemical dissymmetry, A., ii, 290.
magnetic susceptibility of salts in organic solvents ; factors which determine the susceptibility of solutions, A., ii, 413.
relation between paramagnetism of compounds and the form of combination, A., ii, 599.
Quercigh, Emanuele, dioptase from Cor-doba, Argentina, A., ii, 336.

R.

Rabaut, [Pierre] Charles. See *Jules Aloy*.
Rabinovitsch, P. N. See *Ivan I. Ostromisslenski*.
Race, Joseph, use of ammonia in the chlorination of water, A., i, 618.
Radcliffe, L. G., and A. A. Pollitt, naphthenic acid, A., i, 559.
Radlberger, Leopold, the diphenylamine reaction of levulose, A., ii, 55.
Radosević, Radošlav. See *Adolf Kauffmann*.
Rae, William Norman, a period of induction in the dehydration of some crystalline hydrates, T., 1229.
the hydrolysis of iron ammonium alum, T., 1331.
blackening of yellow phosphorus, A., ii, 317.
Rahe, Jessie More. See *George G. Fawcett*, and *John Rogers*.
Rahn, Otto, the influence of temperature and poisons on enzyme action, fermentation, and growth, A., i, 295.
biochemical considerations as regards heredity ; the limits of body size and length of life, A., i, 523.
Raikow, Paul Nikolaivitsch, chemical processes involved in the technical reduction of aromatic nitro-compounds to amino-compounds, A., i, 469, 599.
a method for the detection of calcium in the presence of strontium and barium, A., ii, 646.
Rainer, Josef. See *Sigmund Fränkel*.
Raistrick, Harold. See *Charles Crowther*.

Rakovski, Adam Vladimirovitsch, adsorption. XII. Principle of the mobility of water in adsorption compounds, A., ii, 17.
Rakshit, Jitendra Nath, decompositions of sodium diacetamide and potassium acetamide, T., 180 ; A., i, 309.
estimation of acetone in presence of ethyl alcohol, A., ii, 544.
Rakuzin, Michael A., optical and certain other properties of proteins. I. (continued), A., i, 90.
Rakuzin, Michael A., and (*Mlle.*) *Ek. Maks. Braudo*, rotatory powers and absorption of α - and β -gelatins, A., i, 91.
composition and properties of nutrose, A., i, 295.
Rakuzin, Michael A., (*Mlle.*) *Ek. Maks. Braudo*, and (*Mlle.*) *G. F. Pekarskaja*, limits of sensibility of the colour reactions of proteins and peptonising enzymes, A., ii, 204.
Rakuzin, Michael A., and *G. D. Flier*, adsorption of solutions of casein by alumina, A., i, 90.
gynocardia and chaulmoogra oils, and gynocardinic and chaulmoogric acids, A., i, 273.
Ramsay, (Sir) William, a hypothesis of molecular configuration in three dimensions of space, A., ii, 480.
Ramsey, R. R., the variation of the emanation content of certain springs, A., ii, 5.
Ramseyer, Louis. See *Amé Pictet*.
Randall, Ernest L. See *Frederick G. W. Knapman*.
Randall, Merle, the extrapolation of conductance values, A., ii, 285.
Randall, W. W. See *W. B. D. Penniman*.
Rankin, George Atwater, and *Herbert Eugene Merwin*, the ternary system : $\text{CaO}-\text{Al}_2\text{O}_3-\text{MgO}$, A., ii, 249.
Raper, Henry Stanley. See *Frank Powis*.
Raschig, Fritz, oxidation of azoimide by iodine, A., ii, 98.
Rasmussen, Hans Baggesgaard, estimation of nicotine in tobacco and tobacco extracts ; a critical examination of methods, A., ii, 359.
Rassfeld, Paul, apparatus for determining melting-points at temperatures above 270° , A., ii, 124.
Rassfeld, Paul. See also *Ernst von Meyer*.
Rassow, Berthold, and *Wilhelm Döhle*, new derivatives of benzthiazole, A., i, 747.

- Rassow, Berthold, Wilhelm Döhle, and Edwin Reim**, new derivatives of benzothiazole and its homologues, A., i, 747.
- Rassow, Berthold, and Edwin Reim**, new derivatives of 3- and 5-methylbenzothiazoles, A., i, 749.
- Rathjen, H.** See *Franz Arthur Schulze*.
- Ratschinski, St.** See *Nicolai N. Voroshecov*.
- Rauch, Herbert.** See *Hermann Leuchs*.
- Raveau, C.**, complete expression for the heat of reversible solution in a volatile liquid, A., ii, 374.
- Ravenna, Ciro**, nutrition of green plants by means of organic compounds, A., i, 588.
- Ravenna, Ciro.** See also *Giacomo Luigi Ciamician*.
- Rawdon, Henry S.**, micro-structural changes accompanying the annealing of bronze, A., ii, 35.
- Rawicz, Margarete.** See *Julius von Braun*.
- Rây, Prafulla Chandra**, mercury mercaptide nitrites and their reactions with the alkyl iodides; compounds of the disulphonium series, T., 131; A., i, 246.
mercury mercaptide nitrites and their reaction with the alkyl iodides. II., T., 603; A., i, 542.
- Rây, Prafulla Chandra, and Rajendralal De**, molecular volumes of the hyponitrites of the alkali metals and metals of the alkaline earths, T., 122; A., ii, 186.
- Rây, Prafulla Chandra, and Manik Lal Dey**, interaction of iodine and thiocacetamide in aqueous and alcoholic solutions, T., 698; A., i, 633.
- Reckleben, Hans, and Georg Lockemann**, the action of radium rays on mixtures of hydrogen arsenide and oxygen, A., ii, 208.
- Reckleben, Hans, and Johannes Scheiber**, does acetylene act on metals? A., i, 361.
- Reddelien, Gustav**, steric hindrance, A., i, 48.
- Reed, G. B.**, significance of colour changes in oxydase reagents A., ii, 588.
- Reeves, George**, a new method for the preparation of the plant globulin, A., i, 238.
- Reich, Siegmund**, the nitration of phenylpropionic acid, A., i, 210.
the oxidation of 6-nitro-2-benzylidene-anilino-b-nzylaniline, A., i, 672.
- Reich, Siegmund, and P. Chaskelis**, the Perkin reaction; new method of preparation of substituted cinnamic acids, A., i, 649.
- Reich, Siegmund, and M. Ghazarian**, some derivatives of 2:6-dinitrobenzyl-aniline, A., i, 642.
- Reich, Siegmund, and (Mlle.) M. Kienzopolska**, *m*-azoxyphenylpropionic acid, A., i, 571.
- Reichard, Albert**, adsorption phenomena in the precipitation of calcium carbonate from a carbonate water, A., ii, 474.
- Reichardt, C. J.**, ring test for acetone in urine, A., ii, 119.
- Reid, H. S., and Douglas McIntosh**, cryoscopic measurements at low temperatures, A., ii, 217.
- Reif, Georg**, estimation of methyl alcohol in ethyl alcohol, A., ii, 153.
- Reilly, Joseph**, the resolution of asymmetric quinquevalent nitrogen compounds, A., i, 206.
- Reilly Joseph.** See also *Gilbert Thomas Morgan*.
- Reim, Edwin.** See *Berthold Rassow*.
- Reinders, Willem**, birefractive colloidal solutions, A., ii, 589.
the system: iron-carbon-oxygen, A., ii, 606.
- Reisenegger, H.**, industry and education, A., ii, 612.
- Reiss, F., and G. Diesselhorst**, which constituents of sour milk are precipitated in the alcohol test? A., ii, 120.
- Reiss, Joseph.** See *Albert A. Epstein*.
- Renard, Theodore, and Philippe Auguste Guye**, errors affecting the determination of atomic weights. II. Experimental determination of the vacuum correction for the weight of powders, A., ii, 386.
- Report of the Committee for the Investigation of Atmospheric Pollution**, A., i, 592.
- Report of the Council**, T., 320.
- Report of the International Committee on Atomic Weights**, T., 777.
- Reppin, H.** See *Max Siegfried*.
- Retinger, Julius.** See *Arthur Hantzsch*.
- Rettler, Louis**, lacustrine ambers, A., i, 321.
analyses of two resinous masses used by the Incas of South America for embalming their dead, A., i, 492.
- mercury salicylate and *o*-methoxybenzoate, A., i, 819.
- Reverdin, Frédéric, and J. Lokietek**, *m*-phenetidine and some of its derivatives, A., i, 141, 645.
- Reychler, Albert**, solutions, A., ii, 555.
- Rice, Frank E.**, studies on soils. I. Basic exchange, A., i, 360.

- Richards, Theodore William**, [compressibilities of the elements and their relations to other properties]. Correction, A., ii, 86.
 suggestion concerning the statement of the phase rule, A., ii, 381.
- Richards, Theodore William**, and **Gorham W. Harris**, further study of floating equilibrium, A., ii, 375.
- Richards, Theodore William**, and **John W. Shipley**, compressibility of certain typical hydrocarbons, alcohols, and ketones, A., ii, 376.
- Richards, Theodore William**, and **Charles Wadsworth**, 3rd, density of lead from radioactive minerals, A., ii, 251.
 density of radio-lead from pure Norwegian cleveite, A., ii, 566.
- Richardson, Anna E.**, and **Helen S. Green**, nutrition investigations on cotton-seed meal, A., i, 581.
- Richardson, S. S.**, magnetic rotatory dispersion in relation to the electron theory. I., A., ii, 280.
 magnetic rotatory dispersion in relation to the electron theory. II. The number of electrons and additive relations, A., ii, 280.
- Richartz, Franz**, the stability of diatomic molecules, the heat of dissociation, and the relation of these to electrochemical theory, A., ii, 517.
- Riche, J. A.** See **John Raymond Murlin**.
- Richter, M. M.**, mixed xanthic anhydrides, A., i, 706.
 existence of trisulphur chloride, S_3Cl_2 , A., i, 723.
 2:6-dinitroquinol, A., i, 807.
- Rickenbacher, Walter**, measurements of conductivity in soap films, A., ii, 366.
- Riedel, J. D.**, preparation of salts of an organic derivative of sulphurous acid, A., i, 468.
 preparation of derivatives of hexamethylenetetramine, A., i, 631.
- Riedel, R.**, electrolytic deposition of nickel from chloride solutions. II. The flaking of the nickel, A., ii, 549.
- Rieser, Otto**, production and excretion of formic acid. I. Estimation of formic acid in pure solutions and in urine, together with a new method for the titration of calomel, A., ii, 455.
- Riffe, J.** See **K. P. Anderson**.
- Rimbach, Eberhard**, and **K. Fleck**, alkali double haloids of tin and lead, A., ii, 332.
- Rimini, Enrico**, transformation of nopicnone, A., i, 655.
- Rindfusz, R. E.** See **Harry N. Holmes**.
- Ringer, M.** See **Otto Kym**.
Ringer, Wilhelm Eduard, pure pepsin, A., i, 226.
- Rinkes, Inne Jan**, bixin, A., i, 56.
 quantitative micro-elementary analysis of organic substances, A., ii, 498.
- Rinkes, Inne Jan**, and **J. F. B. van Hasselt**, bixin, A., i, 495, 829.
- Rittman, Walter F.**, thermal reactions of petroleum hydrocarbons in the vapour phase, A., i, 1.
- Rittman, Walter F.**, **O. Byron**, and **Gustav Egloff**, thermal reactions of aromatic hydrocarbons in the vapour phase, A., i, 132.
- Rittman, Walter F.**, and **Thomas J. Twomey**, equilibrium relations among aromatic hydrocarbons produced by cracking petroleum, A., i, 312.
- Ritzel, Albert**, mixed crystals of ammonium chloride and ferric chloride, A., ii, 568.
 formation of mixed crystals, A., ii, 568.
- Rjazancev, M. D.** See **Alexei E. Tschitschibabin**.
- Roark, R. C.**, and **C. C. McDonnell**, reduction of arsenic compounds and the estimation of arsenic by distillation as arsenic trichloride, A., ii, 342.
- Robert, Adrien**. See **Friedrich Kehrmann**.
- Roberts, I.** See **D. Wilson**.
- Roberts, Oswald Digby**, the volatile oil from the wood of the Indian deodar tree, T., 791; A., i, 732.
- Roberts, R. C.** See **Frank Burnett Dains**.
- Robertson, George**. See **James Colquhoun Irvine**.
- Robertson, G. S.**, influence of fluorspar on the solubility of basic slag in citric acid, A., ii, 196.
 solubility of mineral phosphates in citric acid, A., ii, 196.
- Robertson, I. W.** See **George A. Burrell**.
- Robertson, Philip Wilfred**, simultaneous estimation of carbon and halogen by the chromic acid method, T., 215; A., ii, 267.
- Robertson, Thorburn Brailsford**, isolation and properties of tethelin, the growth-controlling principle of the anterior lobe of the pituitary gland, A., i, 350.
 growth. V. Influence of cholesterol on the growth of the white mouse, A., i, 690.
 growth. VI. Influence of lecithin on the growth of the white mouse, A., i, 690.

- Robertson, Thorburn Brailsford**, and **Ethel Cutler**, growth. VII. Influence of the administration of egg lecithin and of cholesterol to the mother, on the growth of suckling mice, A., i, 690.
- Robertson, Thorburn Brailsford**, and **Kiichi Miyake**, influence of alkali and alkaline earth salts on the rate of solution of caseinogen by sodium hydroxide, A., i, 681.
- influence of ethyl alcohol and glycerol on the rate of solution of caseinogen by sodium hydroxide, A., i, 765.
- Robinson, F.**, action of titanous chloride on phenylhydrazine, substituted phenylhydrazines, and *p*-nitrophenylhydrazones, A., ii, 355.
- Robinson, (Mrs.) Gertrude Maud**, experiments on the so-called migration of atoms and groups. I. The nitration of *p*-iodoanisole and other iodophenolic ethers, T., 1078; A., i, 804.
- Robinson, (Mrs.) Gertrude Maud**, and **Robert Robinson**, a decomposition of certain *o*-nitromandelic acids, A., i, 166.
- Robinson, Henry Haliburton**, summation of chemical analyses of rocks, A., ii, 260.
- Robinson, Robert**, an extension of the theory of addition to conjugated unsaturated systems. II. The *C*-alkylation of certain derivatives of *B*-amino-crotonic acid and the mechanism of the alkylation of ethyl acetoacetate and similar substances, T., 1088; A., i, 796.
- Robinson, Robert**. See also (*Miss*) *Ellice Etie Peden Hamilton*, and (*Mrs.*) *Gertrude Maud Robinson*.
- Robinson, William O.**, comparison of methods for the estimation of soil phosphorus, A., ii, 265.
- Roche, James William**. See *Francis Ernest Francis*.
- Rockwood, Elbert William**, diastase accelerators, A., i, 347.
- Rocques, Xavier**, detection of salicylic acid in wine, A., ii, 456.
- Roebuck, J. R.** See *R. F. Ruttan*.
- Roed-Müller, Regitze**. See *A. C. Andersen*.
- Röhl, G.**, estimation of titanium in ferrotitanium, A., ii, 153.
- Röhmann, Franz**, the action of blood serum after intravenous injection of sucrose, A., i, 180.
- Roger, H.**, detection of glycuronic acid in urine, A., ii, 203.
- Rogers, John, Jessie Moore Rahe, George G. Fawcett**, and **George S. Hackett**, the effect of organ extracts on gastric secretion, A., i, 230.
- Rogers, John**. See also *George G. Fawcett*.
- Rogers, Leonard**, intravenous injection of sodium gynocardate in leprosy, A., i, 869.
- Rohden, Ch. de**, determination of ionisation constants and the titration of weak bases by the conductivity method, A., ii, 94.
- Rohland, Paul** [*Waldemar*], adsorption power of soil. II, A., i, 196.
- the adsorption of dyes by colloidal clay, etc., A., ii, 226.
- Rohland, Paul**, and **Franz Heyder**, the adsorption capacity of living yeast, A., ii, 182.
- Rohner & Co.**, preparation of salts of the sulphonlic acids of benzyl chloride [ω -chlorotoluenesulphonic acids] and their homologues, A., i, 801.
- Rom, H.** See *Oskar Baudisch*.
- Romburgh, G. van**, nitro-derivatives of alkylbenzidines, A., i, 223.
- Rona, Peter**, and **Arvo Yeppö**, influence of hydrogen-ion concentration on the oxygen dissociation curve of haemoglobin, A., i, 577.
- Rooney, Katherine E.** See *James Flack Norris*.
- Roos, G. D.**, the heat of fusion and heat of formation of intermetallic compounds, A., ii, 293.
- the equilibrium diagram of the mercury-thallium alloys, A., ii, 329.
- Rosanoff, Martin Andre**. See *I. Drogin*.
- Roschdestvensky, N.** See *Paul Friedländer*.
- Roscoe, (the Right Hon. Sir) Henry Enfield**, obituary notice of, T., 395.
- Rose, William Cumming**, creatine and creatinine. V. Protein feeding and creatine elimination in pancreatic diabetes, A., i, 774.
- Rose, William Cumming**, and **Frank W. Dimmitt**, creatine and creatinine. VII. Fate of creatine and creatinine when administered to man, A., i, 774.
- Rose, William Cumming**, **Frank W. Dimmitt**, and **Paul N. Cheatham**, creatine and creatinine. VI. Protein feeding and creatine elimination in fasting man, A., i, 774.
- Rosenbohm, Ernst**. See *Israel Lifschitz*.
- Rosenheim, Arthur**, [with *E. Brauer*], iso- and hetero-poly-acids. XII. The determination of the constitution of hetero-poly-acids, A., ii, 334.
- Rosenheim, Mary Christine**, new colour reaction for "oxycholesterol," A., ii, 498.

- Rosenheim, Otto**, the galactosides of the brain. IV. The constitution of phrenosin and kerasin, A., i, 493.
- Rosenthal, Helman**, and **Perry Fox Trowbridge**, estimation of fat (in animal substances, etc.), A., ii, 161.
- Ross, Ellison L.**, influence of ether anaesthesia on amino-acids of blood-serum, A., i, 858.
- Ross, J. C.** See **Harry Sands Grindley**.
- Roth, Carl.** See **Carl Paal**.
- Rothlen, Ernst.** See **Adolf Kaufmann**.
- Rothschild, S.** See **Oskar Baudisch**.
- Rowland, Floyd E.**, unusual explosion in connexion with potassium chlorate, A., ii, 431.
- Roxas, M. L.**, reaction between amino-acids and carbohydrates as a probable cause of humin formation, A., i, 797.
- Rózsa, Michael**, review of the processes of chemical transformation in potash deposits, A., ii, 257.
- the chemical structure of the tertiary potash deposits of Upper Alsace, A., ii, 335.
- the quantitative relations of the hydrothermal transformations of the principal salts in the Stassfurt potash deposits, A., ii, 335.
- Rubens, Heinrich**, and **G. Hettner**, the rotation spectrum of water vapour, A., ii, 463.
- Ruder, W. E.**, calorising metals, A., ii, 36.
- Rügheimer, Leopold**, the action of primary amines on substances which yield 1:3-diketones, A., i, 383.
- Ruer, Rwigolf**, and **Franz Goerens**, the polymorphous transformations of pure iron, A., ii, 483.
- Ruff, Otto**, the iron-carbon equilibrium diagram, A., ii, 36.
- Ruff, Otto**, and **Walter Bormann**, the pseudo-eutectic temperature of the iron-carbon alloys, A., ii, 36.
- Ruff, Otto**, [with **Julian Zedner**, and **Leopold Hecht**], antimony pentachloride and iodine, A., ii, 144.
- Rund, Charlotte.** See **Emil Fischer**.
- Ruoss, The Fehling-Soxhlet method of estimating sugar**, A., ii, 155.
- Rupe, Hans**, and **Martin Iselin**, derivatives of methylene-camphor, A., i, 409.
- Rupp, Erwin**, and **A. Hözle**, action of cyanides of the alkali and the alkaline earth metals on sugars. II., A., i, 119.
- Rupp, Erwin**, and **Franz Lehmann**, new method of estimating iodine in organic preparations, A., ii, 110.
- Russell, Edward John**, principles of crop production, A., i, 195.
- Russell, G. A.**, volatile oil of *Euthamia caroliniana* (L.), Greene, A., i, 605.
- Rutherford, (Sir) Ernest**, and **A. B. Wood**, long-range α -particles from thorium, A., ii, 282.
- Buttan, R. F.**, and **M. J. Marshall**, composition of adipocere, A., i, 351.
- Buttan, R. F.**, and **J. R. Roebuck**, fatty acid esters of ethylene glycol, A., i, 115.
- Ryan, Hugh**, and **Joseph Algar**, the di-flavone group. III. Derivatives of dicoumaranone and of diflavanone, A., i, 662.
- Ryan, Hugh**, and **Annie Devine**, condensation of aldehydes with ketones. II. Aldehydes with methyl ethyl ketone, A., i, 654.
- Ryan, Hugh**, and **Thomas Dillon**, the hydrocarbons of beeswax, A., i, 706.
- Ryan, Hugh**, and **Geraldine Plunkett**, unsaturated β -diketones. III., A., i, 656.
- Ryan, Hugh**, and **Michael J. Walsh**, diflavone group. IV. Diveratrilylidenedicoumaranone, A., i, 663.
- deoxyhydrocatechin tetramethyl ether A., i, 722.

S.

- Sabatier, Paul**, and **Marcel Murat**, syntheses of hydrocarbons in the aryl and cyclohexane series, A., i, 205.
- Sabatini, G.** See **Arrigo Mazzucchelli**.
- Sabinin, D.** See **Vladimir I. Palladin**.
- Sachanov, Alexander N.**, and **A. M. Grinbaum**, transport numbers in non-aqueous solutions, A., ii, 123.
- Sacher, Julius Friedrich**, analysis of vanillin, A., ii, 161.
- colorimetric method for the detection of manganese in pigments, varnishes, etc., A., ii, 451.
- Sachs, Georg**, 4:4'-azoxyphthalic acid, A., i, 609.
- Sachs, John H.**, comparison of the permanganate methods for the estimation of required oxygen in waters, A., ii, 399.
- Sahland, Hugo.** See **Ernst von Meyer**.
- Sahlbom, (Miss) Naima**, radioactivity of Swedish spring waters and its connexion with geological formations, A., ii, 208.
- Sahlstedt, A. V.**, the mucilaginous substance of horse urine, A., i, 696.
- Saillard, Émile**, beetroots attacked by *Cercospora beticola* sacc., A., i, 239.

- Saillard, Emile.** action of copper solutions in sucrose ; estimation of invert-sugar in the presence of sucrose, A., ii, 55.
 fundamental analytical methods in sugar chemistry, A., ii, 651.
- St. John, B. H.** analysis of medicated drinks, A., ii, 159.
- Sakai, Takuzo.** See *F. B. Hofman*.
- Salant, William**, and **C. W. Mitchell**, the action of heavy metals on the isolated intestine, A., i, 188.
- Saldaau, P.** apparatus for the measurement of electric resistance of material in the solid state at high temperatures, A., ii, 594.
- Salkowski, Ernst [Leopold].** some derivatives of isethionic acid, A., i, 815.
 the behaviour of certain metals towards acids containing hydrogen peroxide, A., ii, 430.
 destruction of the organic matter in urine by hydrogen peroxide and the estimation of neutral sulphur, A., ii, 445.
 detection of methyl alcohol by Denigès' method, A., ii, 498.
- Salkowski, H.** See *Bernard Knake*.
- Salter, Robert M.** estimation of total carbon in soils, A., ii, 491.
- Salvadori, Roberto**, detection of cadmium, A., ii, 271.
 action of ammonium nitrate on potassium chlorate, A., ii, 563.
- Salway, Arthur Henry**, oxidation of unsaturated fatty oils and unsaturated fatty acids. I. Formation of acraldehyde by the oxidation of linseed oil and linolenic acid, T., 138 ; A., i, 250.
- Samec, Marinilian**, plant colloids. VI. The alkali starches, A., i, 308.
- Sammet, O.** detection of acetone in the urine, A., ii, 653.
- Samson, E.** chemical compound of hexamethylene tetramine and calcium chloride and process relating to same, A., i, 795.
- Sand, Knud**, detection of carbon monoxide in blood, A., ii, 49.
- Sander, A.** titration of thiosulphates in the presence of sulphides and the estimation of thiosulphates in the presence of sulphites, bisulphites, and sulphides, A., ii, 111.
- sulphites, thiosulphates, and polythionates. III. Action of mercuric chloride on sulphurous acid, sulphites, thiosulphates, and polythionates, A., ii, 136.
- volumetric estimation of thiosulphate in the presence of sulphite, A., ii, 536.
- Sandonnini, Carlo**, recognition of complexes in solution by the electrical conductivity method, A., ii, 596.
- Sandoz, Maurice.** See *Friedrich Kehrmann*.
- Sandqvist, Håkan**, an anisotropic aqueous solution, A., i, 206.
 an electrolyte-colloid-crystalline liquid, A., ii, 556.
- Sansum, W. D.**, and **Rollin Turner Woodyatt**, the use of phloridzinised dogs to determine the utilisable carbohydrate in foods ; the food value of commercial glucose, A., i, 231.
 theory of diabetes. VI. Behaviour of *dl*-glyceraldehyde in the normal and diabetic organism, A., i, 353.
 theory of diabetes. VII. Intravenous toleration limit for *dl*-glyceraldehyde and the improbability that it is a chief intermediate in dextrose katabolism, A., i, 354.
- Santesson, Carl Gustaf**, action of poisons on an enzymatic process. IV. Alkaline earths, acids, metallic salts, A., i, 91.
- Sargent, C. S.** See *Francis H. McCruden*.
- Sastray, Sosale Garalapury**, additive compounds of *s*-trinitrobenzene with heterocyclic compounds containing nitrogen in the ring, T., 270 ; A., i, 334.
 the ignition of mixtures of methane and air and hydrogen and air by means of the impulsive electric discharge, T., 523 ; A., ii, 381.
 catalytic bleaching of palm oil, A., i, 116.
 properties of certain chloro-hydrocarbons, A., i, 361.
 action of certain chlorinated hydrocarbons on some metals in the presence of moisture, A., ii, 188.
- Sastray, Sosale Garalapury**, and **Brojendra Nath Ghosh**, synthesis of ketoidopyranols, T., 175 ; A., i, 283.
- Satta, Carlz Carta.** See *Roberto Lepetit*.
- Sauchelli, V.** See *Charles Adams Peters*.
- Sauer, E.** See *Alexander Gutbier*.
- Sauton, Benjamin.** See *Pognan*.
- Savelsberg, Maria**, Laurent's benzimide (benzylidenebenzaldehydecyanohydrin acetal), A., i, 728.
- Saxton, Blair.** See *Harry Ward Foote*.
- Sayre, Ralph.** See *Claude S. Hudson*, and *A. W. Schorger*.
- Scaffidi, L.** See *Ernesto Puxeddu*.
- Scagliarini, Gino**, and *G. B. Berti-Ceroni*, catalytic action of palladium in oxidation reactions, A., ii, 478.

- Scales, F. M.**, estimation of reducing sugars; a volumetric method for estimating cuprous oxide without removal from Fehling's solution, A., ii, 117.
- Scalione, Charles C.**, volatile oil of *Calycanthus occidentalis*, A., i, 658.
- Scalione, Charles C.**, and **Herbert S. Blakemore**, *Ceanothus velutinus* (snow brush) as a source of wax and tannin, A., i, 536.
- Scarpa, Giuseppe**, thermal analysis of mixtures of alkali hydroxides with the corresponding haloids. III. Lithium compounds, A., ii, 99.
- Scatchard, George**. See *Marston Taylor Bogert*.
- Scelba, M.** See *C. Carlinfanti*.
- Schaal, A. A.** See *Edwin Bret Hart*.
- Schaarschmidt, Alfred**, new method for the preparation of *allochrysoketonecarboxylic acid* and its derivatives; intramolecular Friedel-Crafts' reaction with acid anhydrides, A., i, 47.
- introduction of acid radicles into the side benzene nuclei of anthracene; preparation of *o*-1-hydroxy-2-anthra-*coylbenzoic acid*, A., i, 381.
- preparation of 3:4-benzofluorenone (*allochrysoketone*) and its ability to form a metastable variety, A., i, 731.
- Schaarschmidt, Alfred**, [with *Andree Constandachi*, and *Max Thiele*], benzoyleneanthranil, bisanthranils, and azoimidoanthraquinones, A., i, 856.
- Schaarschmidt, Alfred**, and *D. Irineu*, reduction products of 1- and 2-benzoyl-anthraquinones, A., i, 408.
- Schaarschmidt, Alfred**, and *N. Irineu*, new method for the preparation of *allochrysoketonecarboxylic acid* and its derivatives; intramolecular Friedel-Crafts' reaction with acid anhydrides, A., i, 47.
- the cause of the abnormal colour of derivatives of *allochrysoketone* (3:4-benzofluorenone), A., i, 731.
- Schade, M.** See *Fritz Foerster*.
- Schaefer, Clemens**, and *Martha Schubert*, the optical behaviour of water of crystallisation, A., ii, 505.
- short-wave ultra-red characteristic frequencies of the sulphates and carbonates, A., ii, 506.
- Schaeffer, E. J.**, *M. G. Paulus*, and *Harry Clary Jones*, absorption spectra of aqueous solutions of poly- and simple hydrated salts by means of a radiometer, A., ii, 66.
- Schaeffer, John A.**, rapid method for the analysis of red lead and orange mineral, A., ii, 271.
- Schaeling, Karl**. See *Karl Schaum*.
- Schaffer, Frederich**, and *E. Gury*, detection and estimation of citric acid in wine, A., ii, 352.
- Schaller, Waldemar Theodore**, alunite from Marysvale, Utah, A., ii, 627.
- inyoite and meyerhoferite; two new calcium borates, A., ii, 628.
- lucinitie, a new mineral dimorphous with variscite, A., ii, 629.
- the amblygonite group of minerals, fremontite (= natramblygonite), A., ii, 630.
- schnnebergite, A., ii, 630.
- romeite, A., ii, 630.
- the natural antimonites and antimonates, A., ii, 631.
- koechlinite (bismuth molybdate), a new mineral, A., ii, 631.
- probable identity of mariposite and algurite, A., ii, 631.
- the chemical composition of tremolite, A., ii, 631.
- velardeite, a new member of the melilite group, A., ii, 632.
- the melilite group, A., ii, 632.
- Schaller, Waldemar Theodore**, and *R. K. Bailey*, intumescent kaolinite, A., ii, 192.
- Schames, Léon**, a simple relation involving the heat of vaporisation of substances for which the reduced gas constant $R_c=33$, A., ii, 471.
- Scharf, E.** See *Arthur Michael*.
- Schaum, Karl**, *Karl Schaeling*, and *Friedrich Klausing*, hylotropic isomeric modifications of substances, A., i, 405.
- Scheer, J. vander**. See *Phœbus A. Levene*.
- Scheffer, Frans Eppo Cornelis**, allotropy of the ammonium haloids. I. and II., A., ii, 31, 431.
- Scheffer, Frans Eppo Cornelis**. See also *J. D. R. Scheffer*.
- Scheffer, J. D. R.**, and *Frans Eppo Cornelis Scheffer*, diffusion in solutions, A., ii, 602.
- Scheiber, Johannes**. See *Hans Reckleben*.
- Scheibler, Helmuth**, the preparation of β -sulphidodibutyric acid, A., i, 14.
- the cheinical constituents of the bituminous tar oils rich in sulphur (ichthyol oils). I., A., i, 65.
- Scheibler, Helmuth**, and *Walther Bube*, unsaturated sulphidodicarboxylic acids. I. β -Sulphidodicrotonic acid, A., i, 14.
- Scheibler, Helmuth**, and *J. Magasanik*, the mutual relationship of the optically active forms of $\beta\beta'$ -iminodibutyric acid and β -aminobutyric acid. II., A., i, 20.

- Schelenz, Hermann**, history of specific gravity determination, A., ii, 84.
- Scheltema, M. W.**, estimation of the ammonia from the amino-acids and proteins of urine by means of formaldehyde, A., ii, 63.
- Schenitzky, Ch.**, the estimation of ammonia in human urine; comparative estimations with the apparatus of Schloesing, Kruger-Reich-Schittenhelm, and of Hahn, A., ii, 575.
- Schenker, E.** See *Emil Baur*.
- Scheringa, Klaas**, bleaching of flour by nitrogen peroxide, A., i, 623.
- phosphorescence, A., ii, 68.
- estimation of water and fats in feeding stuffs, A., ii, 118.
- Scherpenberg, A. L. van**, some ebullioscopic determinations of molecular weights in pyridine, A., i, 321.
- Scherrer, Paul**, the rotation dispersion of hydrogen, A., ii, 167.
- Scheunert, Arthur**. See *W. Ellenberger*.
- Schibsted, Helge**. See *Karl Andreas Hofmann*.
- Schick, Paul**, and **Géza Hatos**, methylred as an indicator in the estimation of nicotine by Toth's method, A., ii, 503.
- Schiff, Hugo**, obituary notice of, T., 424.
- Schimank, Hans**, the applicability of Daniel Berthelot's equation of state to the behaviour of vapours, A., ii, 552.
- Schimmel & Co.**, ethereal oils; estimation of eucalyptus oil, A., ii, 349.
- Schjerve, Jens**. See *Heinrich Goldschmidt*.
- Schleich, Karl**. See *Otto Diels*.
- Schlenk, Wilhelm**, preparation of organometallic compounds, A., i, 683.
- Schlenk, Wilhelm**, and **Johanna Holtz**, a compound of nitrogen with five hydrocarbon radicles, A., i, 385.
- Schlenk, Wilhelm**, and **Rudolf Ochs**, sodium triphenylmethyl, A., i, 379.
- Schlesinger, Hermann I.** and **Clyde Coleman**, conductivity. III. Further studies on the behaviour of the alkali metal formates in anhydrous formic acid, A., ii, 210.
- Schlesinger, Hermann I.** See also *Eugene C. Bingham*.
- Schlesinger, N. A.**, heptamethylenebis- α -imino-acids and the stereoisomerism of their copper salts, A., i, 252.
- Schluck, Georg**, behaviour of tellurium towards hydrogen peroxide, A., ii, 615.
- Schlundt, Herman**, extraction of radium from carnottite ores with concentrated sulphuric acid, A., ii, 430.
- Schlundt, Herman**. See also *H. H. Barker*, and *Albert G. Loomis*.
- Schmidt, Carl L. A.**, the refractive indices of solutions of certain proteins. IX. Edestin, A., i, 174.
- changes in the concentrations of hydrogen and hydroxyl ions which take place in the formation of certain protein compounds, A., i, 513.
- large fat extractor, A., ii, 243.
- Schmidt, Ernst**, scopoline, A., i, 285.
- certain nitrogenous derivatives of pimelic acid, A., i, 374.
- the degradation of scopoline, A., i, 419.
- Schmidt, Gerhard Carl**, and **Bernhard Hinteler**, adsorption. V., A., ii, 225.
- Schneider, Otto**. See *Karl Andreas Hofmann*.
- Schneider, Wilhelm**, action of hydrogen sulphide on dextrose, A., i, 791.
- Schneider, Wilhelm**, and **Johanna Sepp**, ethylthioglucoside, A., i, 792.
- Schneider, Wilhelm**. See also *Franz Fischer*.
- Schniderschitsch, N.** See *Robert Kremann*.
- Schoch, Eugene Paul**, *Denton J. Brown*, and, in part, *Thomas E. Phipps*, electro-analytical method for the estimation and separation of the metals of the copper-tin group, A., ii, 578.
- Schoch, Eugene Paul**, and *F. M. Crawford*, electro-analysis of silver with solutions of silver chloride in ammonia, A., ii, 576.
- Schoch, Eugene Paul**, and *William A. Felsing*, influence of the potassium ion and of the calcium ion on the ferri-ferro-cyanide potential, A., ii, 596.
- Schoeller, Walter R.**, and *A. R. Powell*, alkalimetric estimation of certain bivalent metals in the form of tertiary phosphates, with especial reference to the volumetric estimation of cobalt and nickel, A., ii, 346.
- Schönfeld, H.**, hardening of oils in presence of nickel borate, A., i, 248.
- Schönfeld, H.** See also *Adolf Grün*.
- Schoepfie, C. S.** See *Moses Gomberg*.
- Scholes, Samuel Ray**, identification of tervalent manganese in glass, A., ii, 105.
- Schollenberger, Charles J.**, estimation of carbon dioxide as barium carbonate applied to the Marr method for estimating carbonates in soils, A., ii, 395.

- Schollenberger, Charles J.** See also *J. W. Ames*.
- Scholta, K.** See *Max Klostermann*.
- Scholtz, Max**, demethylolation of isobeerine, A., i, 416.
- derivatives of 2-methylindole, A., i, 420.
- Schoorl, Nicolaas.** See *H. C. Milius*.
- Schorger, A. W.**, oils of the coniferæ. V. The leaf and twig, and bark oils of incense cedar, A., i, 320.
- Schorger, A. W.**, and *Ralph Sayre*, isoprene from β -pinene, A., i, 5.
- Schorger, A. W.**, and *D. F. Smith*, the galactan of *Larix occidentalis*, A., i, 589.
- Schramm, E.** See *John R. Cain*.
- Schreinemakers, Frans Antoon Hubert**, non-, uni-, and bi-variant equilibria. II.-IX., A., ii, 19, 132, 180, 231, 381, 422, 476.
- Schroeder, Johannes**, the solubility of leucite in sulphurous acid, A., ii, 566.
- Schryver, Samuel Barnett**, the phenomena of clot formations. III. Further investigations of the cholate gel, A., i, 448.
- Schtschukarev, A. N.**, magneto-chemical effect, A., ii, 172.
- Schubert, Martha.** See *Clemens Schaefer*.
- Schulemann.** See *Johannes Gadamer*.
- Schultz, Gustav**, and *E. Göttelmann*, conversion of ψ -ionone into ionone, A., i, 403.
- Schultze, Ernst.** See *Otto Dimroth*.
- Schulze, Armin**, a colorimetric method for the estimation of acetylene, A., ii, 649.
- Schulze, Bernhard**, estimation of potassium in potassium salts by the perchlorate method, A., ii, 492.
- Schulze, Frans Arthur**, and *H. Rathjen*, the ratio of the specific heats $K = c_p/c_v$ of nitrogen, A., ii, 217.
- Schulze, Otto.** See *Hans Thierfelder*.
- Schumm, Otto**, "haematorphyrin" from urine and bone, A., i, 574.
- haematin as a pathological constituent of blood, A., i, 775.
- amount of sugar in blood under physiological and pathological conditions. III., A., ii, 454.
- apparatus for the estimation of urea in cerebrospinal fluid, A., ii, 501.
- Schumpelt, K.** See *Karl Andreas Hofmann*.
- Schuppli, O.** See *W. I. Baragiola*.
- Schwarz, Anton.** See *Carl Paal*.
- Schwarz, M. von**, the structure of electrolytic copper, A., ii, 34.
- Schweikert, Gustav**, determination of the velocity of sound and of the ratio of the specific heats of gases by the method of Kundt's dust figures, A., ii, 79, 216.
- Schwenk, Erwin**, the behaviour of 3-hydroxythionaphthen (thioindoxyl) in the organism; the synthesis of thio-indican, A., i, 301.
- Schwiete, A.** See *Arthur Hantzsch*.
- Scott, Alexander**, presidential address, T., 338.
- Scott, Frederick Hughes**, the effect of isotonic Ringer's solution on blood-corpuscles, A., i, 176.
- Scott, H.** See *George Kimball Burgess*.
- Scott, John C.** See *Isaac Ott*.
- Scott, Wilfred W.**, rapid volumetric procedures for estimating combined alumina and basic alumina or free acid in aluminium salts, A., ii, 116.
- Scurti, Francesco**, and *G. Tomassi*, sub-erogenic acids, A., i, 789.
- Seibert, Frank M.**, and *George A. Burkell*, the critical constants of *n*-butane, isobutane, and propylene, and their vapour pressures at temperatures between 0° and 120°, A., ii, 81.
- Seidell, Atherton.** See *Robert R. Williams*.
- Seitz, Wilhelm, H. Alterthum**, and *Gedeon Lechner*, thermal expansion and compressibility of liquids at low temperatures, A., ii, 173.
- Seitz, Wilhelm**, and *Gedeon Lechner*, thermal expansion and compressibility of liquids at low temperatures, A., ii, 174.
- Seligman, Richard**, and *Percy Williams*, hydrates of aluminium nitrate, T., 612; A., ii, 436.
- action of boiling acetic, propionic, and butyric acids on aluminium, with a note on the action of formic and some higher acids, A., ii, 187.
- action of nitric acid on aluminium, A., ii, 435.
- Selivanov, B.**, artificial preparation, fusibility and other properties of silicates of the system: $2\text{Fe}_2\text{O}_3\text{SiO}_2 + 2\text{CaO}\text{SiO}_2$, A., ii, 254.
- Semmler, Friedrich Wilhelm**, and *Futung Liao*, constituents of essential oils; elemol, a naturally-occurring monocyclic sesquiterpene alcohol, $C_{15}\text{H}_{28}\text{O}$, A., i, 492.
- Senften, W.**, a modification of the Lunge nitrometer, A., ii, 148.
- Senglet, R.** See *Emil Briner*.
- Senior, James K.** See *Phœbus A. Levene*.

- Senter, George, and Harry Dugald Keith Drew**, experiments on the Walden inversion. IV. The influence of the solvent on the sign of the product in the conversion of phenylchloroacetic acid to phenylaminoacetic acid, T., 1091; A., i, 815.
- Senter, George, and Stanley Horwood Tucker**, the Walden inversion. III. The kinetics and dissociation constant of phenylbromoacetic acid, T., 690; A., ii, 524.
- Senter, George, and Henry Wood**, reactivity of the halogens in organic compounds. IX. Interaction of alkalis and alkali bromoacetates and bromopropionates in ethyl-alcoholic solution, T., 681; A., ii, 523.
- Sepp, Johanna**. See *Wilhelm Schneider*.
- Sernagiotto, E.** See *Luigi Francesconi*.
- Seymour-Jones, Richard Arnold**, obituary notice, T., 371.
- Shaffer, Philip Anderson, and R. S. Hubbard**, estimation of β -hydroxybutyric acid, A., ii, 352.
- Shamoff, V. N.** secretion of the pituitary by stimulation of the superior cervical ganglion, A., i, 232.
the action of pituitary extracts on isolated intestinal loops, A., i, 232.
- Shaw, William M.** See *Ross Aiken Gortner*.
- Shedd, Oliver March**, relation of sulphur to soil fertility, A., i, 196.
- Shepard, Norman A., and Arthur A. Ticknor**, amines. V. Formation of Schiff's bases from β -phenylethylamine and their reduction to alkyl derivatives of this amine, A., i, 385.
- Sherman, Henry Clapp, and J. C. Baker**, experiments on starch as substrate for enzyme action, A., i, 767.
- Sherman, Henry Clapp, and P. W. Punnett**, products of the action of certain amylases on soluble starch, with special reference to the formation of dextrose, A., i, 767.
- Sherman, Henry Clapp, and A. P. Tanberg**, amylase of *Aspergillus oryzae* [taka-diastase]. A., i, 768.
- Sherndal, Alfred E.** See *Francis D. Dodge*.
- Sherrard, G. O.** See *William Ringrose Gelston Atkins*.
- Shibata, Yuji**, the absorption spectra of complex metalammines. I. Absorption spectra of aqueous solutions of complex cobaltiammines and their chemical constitution, A., ii, 277.
- Shimidzu, Toraji**. See *Yasuhiko Asahina*.
- Shimizu, Shigematsu**, "senso," the dried venom of the Chinese toad, A., i, 698.
- Shipley, John W.**, sodium pyrogallate as a reagent for the estimation of oxygen, A., ii, 571.
- Shipley, John W.** See also *Theodore William Richards*.
- Shirabe, G.** See *Yasuhiko Asahina*.
- Shonle, H. A.** See *H. H. Mitchell*.
- Shorter, Sydney Alfred, and S. Ellingworth**, the emulsifying action of soap; a contribution to the theory of detergent action, A., ii, 130.
- Sichling, Konrad**. See *Emil Baur*.
- Sidener, C. F., and Earl Pettijohn**, estimation of aluminium, A., ii, 538.
- Sieburg, Ernst**, biology of aromatic arsenic compounds, A., i, 777.
the formaldehyde-sulphuric acid reaction, A., ii, 454.
- Siegbahn, Manne**, the primary high frequency spectrum of iodine and of tellurium, A., ii, 462.
a new series (L) in the high frequency spectra of the elements, A., ii, 462.
a further series (M series) in the high frequency spectra of the elements, A., ii, 463.
- Siegbahn, Manne, and Einar Friman**, the high frequency spectra of the elements from gold to uranium, A., ii, 167.
the high frequency spectra (L series) of the elements polonium, radium, thorium, and uranium, A., ii, 277.
a vacuum spectrograph for high frequency spectra and a preliminary investigation of the rare earths, A., ii, 361.
the high frequency spectra of the elements arsenic-rhodium, A., ii, 362.
the high frequency spectra (L series) of the elements tantalum to bismuth, A., ii, 362.
the high frequency spectra (L series) of the elements tantalum to uranium, A., ii, 405.
- Siegbahn, Manne, and Wilhelm Stenström**, the high frequency spectra (K series) of the elements chromium to germanium, A., ii, 205.
the Röntgen spectra of the elements sodium to chromium, A., ii, 509.
- Siegfried, Max, and H. Reppin**, action of bromine on proteins and amino-acids, A., i, 512.
- Siegmund, Wilhelm**, quinhydrones, A., i, 152.
- Siegwart, J.** See *Hermann Staudinger*.
- Siemssen, J. A.** See *Alfred Werner*.
- Sieper, Gustav**. See *Alfred Coehn*.

- Siertsema, Lodewyk Hendrik**, the magnetic rotation of the plane of polarisation in titanium tetrachloride. II., A., ii, 167.
- Sieverts, Adolf**, metallic calcium and its use in gas analysis, A., ii, 432.
- Sieverts, Adolf, E. Jurisch, and A. Metz**, the solubility of hydrogen in the solid alloys of palladium with gold, silver, and platinum, A., ii, 244.
- Sieverts, Adolf, and E. Peters**, catalytic oxidation of hypophosphite solutions by palladium, A., ii, 237.
- Sieverts, Adolf, and W. Wipplermann**, the structure of copper deposits from the technical copper electrolyte process, A., ii, 289.
- Sigmond, Alexius A. J. von**, characterisation of soils by means of hydrochloric acid extracts and by the power of exchanging bases, A., i, 240.
- Silberblatt, B.** See *Oskar Baudisch*.
- Silbermann, J.** See *Walter Fraenkel*.
- Silva, Giuseppe**. See *Friedrich Kehrmann*.
- Simmermacher, W.** See *Theodor Pfeiffer*.
- Simmonds, Nina**. See *Elmer Verner McCollum*.
- Simmons, William Herbert**, formic acid as a reagent in essential oil analysis, A., ii, 117.
- Simon, Italo**, action of glycerol. I. Haemolytic action of glycerol *in vivo* and *in vitro*, A., i, 448.
- Simonis, Hugo, and Alfred Elias**, the residual affinities in benzopyrones, A., i, 62.
- dithiocoumarin, A., i, 498.
- a new synthesis of 1-thiochromones [benzthiopyrones] and the preparation of 1:4-dithiochromones [4-thiobenzthiopyrones]. A., i, 499.
- residual affinities of benzopyrones. II. Double compounds of 2:3-dimethyl-4-thiochromone [2:3-dimethyl- γ -benzthiopyran], A., i, 660.
- Simonis, Hugo**, [with *Goldenzweig*], 3-methyleoumarin, A., i, 57.
- Simons, Frank Darius**, comparison and identification of various types of smoking opium, A., ii, 402.
- Simpson, G. S.** See *Philip Embury Browning*.
- Singh, Bawa Kartar**, the valency of two directly linked nitrogen atoms. I., T., 780; A., i, 757.
- Singh, Puran**, and *T. P. Ghose*, use of nickel hydroxide in tannin estimation, A., ii, 204.
- Sircar, Anukul Chandra**, the relation between the chemical constitution and colour of azo-compounds, T., 757; A., i, 679.
- Sivolobov, A.**, odiferous substances of the thorn-apple, *Datura stramonium*, A., i, 110.
- Sjollema, B. J.**, and (*Mlle.*) *A. J. H. Kam*, the formation of methylglyoxal and formaldehyde in glycolysis, A., i, 791.
- Skraup, Franz**, the electrical conductivity of liquid metals and alloys in its relation to the electron concentration and the viscosity, A., ii, 466.
- the separation of gas mixtures under the influence of a direct current, A., ii, 469.
- chemical reactions under the influence of the electric discharge in an atmosphere of an inert gas, A., ii, 598.
- Skinner, J. J.**, field test with a toxic soil constituent: vanillin, A., i, 111.
- Skita, Aladar**, [with *W. Brunner*], catalytic reduction. X. Reduction of aromatic alcohols, aldehydes, and ketones, A., i, 41.
- catalytic hydrogenations. XII. Hydrogenation of heterocyclic compounds, A., i, 835.
- Skita, Aladar**, [with *P. Stückart*], catalytic reduction. IX. The catalytic reduction of aldehydes and ketones, A., i, 16.
- Skita, Aladar**. See also *Ludwig Gattermann*.
- Skossarewsky, Michel, and Nicolas Tchitchinaé**, the solubility of sodium hydroxide in liquid ammonia, A., ii, 431.
- Skrabal, Anton**, consecutive reactions. I. The measurement of consecutive reactions with a single set of intermediate products which can be estimated quantitatively, A., ii, 477.
- reaction velocity-temperature studies. I. The magnitude of the temperature-coefficient of reaction velocity, A., ii, 606.
- Skrabal, Anton**, and *Josef Gruber*, halogen oxygen compounds. XII. Kinetics of the formation of iodate from iodine in presence of the triiodide ion, A., ii, 605.
- Skrabal, Anton**, and *Richard Hohlbaum*, halogen oxy-compounds. XI. Kinetics of the formation of iodate from hypiodite for small iodide concentrations, A., ii, 477.
- Straup, Siegfried**, vital stains with the simplest dyes, and their fixation, A., i, 869.
- Slack, H. F.**, new method for the estimation of fatty acids in soaps, A., ii, 56.

- Slater, M. H.** See *Harry Sands Grindley*.
- Slater, Wilfrid Ernest**, the influence of different surfaces on the decomposition of methane, T., 160; A., ii, 182.
- Slator, Arthur**, rate of growth of bacteria, T., 2; A., i, 235.
- Sluiter, Carel Herman**, composition of the hydrochlorides obtained from formaldoxime, A., i, 250.
- the constitution of the hydrochlorides obtained from formaldoxime and the strength of the bases from which they are derived, A., i, 468.
- Slyke, Donald D. van**, the microchemical method for gasometric determination of aliphatic amino-nitrogen, A., ii, 61.
- analysis of proteins by determination of the chemical groups characteristic of the different amino-acids, A., ii, 62.
- Slyke, Donald D. van**, and **Glenn E. Cullen**, estimation of urea by the urease method, A., ii, 203.
- Slyke, Donald D. van**, **Mariam Vinograd Vilchur**, and **J. R. Losee**, the Abderhalden reaction, A., ii, 120.
- Slyke, Lucius Lincoln van**, and **Alfred W. Bosworth**, chemical changes in the souring of milk, A., i, 354.
- Slyke, Lucius Lincoln van**. See also *Alfred W. Bosworth*.
- Smid, (Miss) E. I.** See *Heike Kamerlingh Onnes*.
- Smith, Alexander**, and **Robert Peyton Calvert**, the dissociation pressures of mercurous chloride, A., ii, 298.
- Smith, Alexander**, and **Herbert E. Eastlack**, allotropy and solubilities in water of ammonium bromide, A., ii, 482.
- ammonium iodide, its solubilities and the absence of a transition point, A., ii, 529.
- Smith, C. A.**, **Raymond J. Miller**, and **Philip Bouvier Hawk**, gastro-intestinal studies. XI. The relative digestibility of lard and hydrogenated vegetable oil, A., i, 182.
- Smith, C. M.** See *C. C. McDonnell*.
- Smith, D. F.** See *A. W. Schorger*.
- Smith, Donald Pritchard**, and *Newell T. Gordon*, factors affecting the electromotive force of binary solid alloys, A., ii, 214.
- Smith, Elgar Fahs**, the development of electro-analysis in America, A., ii, 52.
- Smith, F. H.**, fat analysis. I. Soluble and insoluble fatty acids, A., ii, 118.
- Smith, G. Ennis**, lead arsenates; the factors controlling the reactions of lead nitrate and lead acetate with disodium [hydrogen]arsenate, A., ii, 619.
- Smith, George Frederick Herbert, F. N.**
- Ashcroft**, and **George Thurland Prior**, chabazite from county Antrim, A., ii, 258.
- Smith, Harold**, a comparison of the positive rays with the spectrum of the positive column in a mixture of hydrogen and helium, A., ii, 5.
- Smith, Henry George**, the essential oil of *Eucalyptus Smithii* from various forms of growth, A., i, 272.
- Smith, Henry George**. See also *Richard Thomas Baker*.
- Smith, Herschel Gaston**. See *Henry Jernain Maude Creighton*.
- Smith, Henry L.**, melting point of salicylic acid, and a test for the presence of *p*-hydroxybenzoic acid, A., ii, 159.
- Smith, John Walter**, 3-phenanthrol-4-ald hyde, T., 568; A., i, 487.
- Smith, R. H.**, sulphur in malleable cast iron, A., ii, 141.
- Smith, Samuel Walter Johnson**, an explanation of the migration of the ions, A., ii, 368.
- a method of exhibiting the velocity of iodine ions in solution, A., ii, 369.
- Smits, Andreas**, critical end-points in ternary systems. III., A., ii, 133.
- the pressure-composition diagrams of unary systems according to the theory of allotropy, A., ii, 381.
- passivity of iron, A., ii, 567.
- Smits, Andreas**, and **Adriaan Hendrik Willem Aten**, application of the theory of allotropy to electromotive equilibria. II. Passivity of iron, A., ii, 77.
- application of the theory of allotropy to electromotive equilibria, A., ii, 410, 597.
- Smits, Andreas**, and **S. C. Bokhorst**, the system phosphorus from the point of view of the theory of allotropy, A., ii, 317.
- Smits, Andreas**, and **Cornelis Adriaan Lobry de Bruijn**, the periodic passivity of iron, A., ii, 122.
- Smits, Andreas**, **G. Meyer**, and **R. Ph. Beck**, black phosphorus. I., A., ii, 185.
- Smoluchowski, Marie von**, colloid statistics and the mechanism of diffusion, A., ii, 302.
- theoretical considerations with respect to the viscosity of colloids, A., ii, 473.
- Snyder, R. S.** See *Ralph S. Potter*.
- Société pour l'Industrie Chimique à Bâle**, preparation of condensation products of papaverine and its derivatives with aldehydes or substances capable of producing aldehydes, A., i, 221.

- Somieski, Carl.** See *Alfred Stock*.
- Sommer, Fritz**, the imide character of hydronitric acid (azouimide). I. Synthesis of azidodithiocarbonic acid, A., ii, 29.
- Sommer, Fritz**, and *Heinrich Pincas*, mechanism of the azouimide synthesis from hydrazine and nitrous acid, A., i, 680; ii, 316.
- two reactions of azouimide with analytical importance, A., ii, 97.
- Sommer, Fritz**, and *Kurt Weise*, hydrazine and its inorganic derivatives. III. The sulphates of hydrazine, with special reference to their double salts, A., ii, 315.
- Somogyi, R.**, influence of catalysts (alkaloids and dyes, etc.) on yeast fermentation, A., i, 619.
- adsorption of narcotics by gels, A., ii, 475.
- Sonn, Adolf**, preparation of β -orecinol, A., i, 391.
- Sorge, Hermann**. See *Heinrich Wieland*.
- Sorolla, J.** See *Antonio Madinaveitia*.
- Sosman, Robert B.**, and *J. Clyde Hostetter*, the oxides of iron. I. Solid solution in the system: Fe_2O_3 - Fe_3O_4 , A., ii, 331.
- Sosman, Robert B.**, and *Herbert Eugene Merwin*, the system: lime-ferric oxide, A., ii, 618.
- Sosman, Robert B.** See also *J. Clyde Hostetter*.
- Souza, David Henriques de**, the stability of pancreatic lipase, A., i, 525.
- Späth, Ernst**. See *Rudolf Wegscheider*.
- Spanagel, Hermann**. See *Rudolf Friedrich Weinland*.
- Spannagel, Hans**. See *August Darapsky*.
- Speitel, R.** See *Friedrich Kehrmann*.
- Spencer, Leonard James**, crystals of iron phosphide from a blast-furnace, A., ii, 255.
- Spencer, S. R.** See *Philip Embury Browning*.
- Sperber, Joachim**, displacement of acids by hydrogen peroxide, A., ii, 314.
- Speyer, Edmund**. See *Martin Freund*.
- Spiegel, Leopold [Julius]**, yohimbine. III. Constitution of yohimbine, and its relationship to yohimboic acid; mesoyohimbine, a new yohimbe alkaloid, A., i, 286.
- yohimbine. IV. The supposed identity of yohimbine and quebrachine, A., i, 287.
- Spiegel, Leopold**, and *M. Corell*, yohimbine. V. The Hofmann degradation; methyl yohimboic acid, A., i, 667.
- Spielmann, Percy E.**, and *F. Butler Jones*, the analysis of benzol first-runnings, A., ii, 583.
- Spielmann, Percy E.**, and *E. G. Wheeler*, analysis of commercial benzols, A., ii, 348.
- Spiro, Karl**, the oligodynamic action of copper, A., i, 452.
- the oligodynamic action of copper; the nature of antagonism, A., i, 586.
- Stadlin, Werner**, detection of benzoic acids in fats, A., ii, 653.
- Stadnikov, George L.**, imino-acids, A., i, 259.
- reaction of esters with organo-magnesium compounds. II. and III., A., i, 259, 260.
- Stahl, Willy**, reaction of gases with lead and silver, A., ii, 102.
- the "spitting" of silver, A., ii, 529.
- Stanek, Vladimir**, migration of betaine in plants, A., i, 457.
- estimation of carbon in the organic non-sugar constituent of saturation (sugar) scums, A., ii, 267.
- Stark, Johannes**, the neutral atom and the positive ion as carriers of the band spectrum and of the series spectrum of hydrogen, A., ii, 166.
- facts and conclusions in relation to the number and the coupling of electrons in the hydrogen atom, A., ii, 505.
- Starke, Martin**. See *Max Busch*.
- Starkweather, Howard W.** See *Gregory Paul Baxter*.
- Stătescu, C.**, the relationships between the index of refraction and the density of some gases, A., ii, 1.
- Staudinger, Hermann**, aliphatic diazo-compounds. III., A., i, 847.
- aliphatic diazo-compounds. XI. Reactions of benzoylphenyldiazomethane, A., i, 854.
- Staudinger, Hermann**, *Eug. Anthes*, and *F. Pfenninger*, aliphatic diazo-compounds. VII. Diphenyldiazomethane, A., i, 851.
- Staudinger, Hermann**, *J. Becker*, and *H. Hirzel*, aliphatic diazo-compounds. XIII. Action of acid chloride on ethyl diazoacetate, A., i, 855.
- Staudinger, Hermann**, and *Alice Gaule*, aliphatic diazo-compounds. IV. Comparison of the nitrogen scission in the case of different aliphatic diazo-compounds, A., i, 848.
- aliphatic diazo-compounds. IX. Diphenylenediazomethane, A., i, 852.
- aliphatic diazo-compounds. X. Attempts to prepare isomeric diazo-compounds or hydrazones A., i, 853.

- Staudinger, Hermann**, and *J. Goldstein*, aliphatic diazo-compounds. VI. Diphenyldiazomethane derivatives, A., i, 850.
- Staudinger, Hermann**, and *Ch. Mähling*, aliphatic diazo-compounds. XII. Action of acid chlorides on [benzene-substituted] phenyldiazomethane carboxylic esters, A., i, 855.
- Staudinger, Hermann**, and *F. Pfenniger*, aliphatic diazo-compounds. VIII. Action of sulphur dioxide on diphenyldiazomethane, A., i, 852.
- Staudinger, Hermann**, and *J. Siegwart*, aliphatic diazo-compounds. V. Action of hydrogen sulphide on diazo-compounds, A., i, 849.
- Stearns, Allen Edwin**. See *Stewart Woodford Young*.
- Stearns, Thornton**. See *D. Wright Wilson*.
- Steensma, Frederik Alardus**, is the use of flour bleached with hydrogen peroxide injurious to health? A., i, 623.
- Stehelin, Pierre**. See *Amé Pictet*.
- Steichen, A.**, the variation of the radioactivity of the hot springs at Tuwa, A., ii, 284.
- Steiger, George**. See *Esper S. Larsen*.
- Steimle, F.** See *Emilio Noeling*.
- Steiner, Karl**, chlorination experiments with antimony pentachloride, A., i, 151.
- Steinhäuser, Ed.**, and *Emil Diepolder*, some derivatives of pyridine and quinoline, A., i, 739.
- Steinich, A.** See *Karl von Auwers*.
- Steinitzer, F.**, detection of bile in soaps, A., ii, 164.
- Stenström, Wilhelm**. See *Manne Siegbahn*.
- Stephanides, Michel**, a colorimetric method used by the Romans for characterising soft waters, A., ii, 448.
- Stephenson, A. E.** See *Frank Burnett Dains*.
- Stepnyczka-Marinkovic, (Mme.) A.**, transport number of ferrous ions in solutions of ferrous chloride, A., ii, 11.
- Stepp, Wilhelm**, indispensability of lipoids for life, A., i, 449.
- Stern, Otto**, the entropy of solid solutions, A., ii, 379.
- Stewart, Olus Jesse**. See *Gregory Paul Baxter*.
- Sieglitz, Julius**, and *Helen Tredway Graham*, thermal decomposition of symmetrical diarylhydrazines, A., i, 758.
- Stiles, Walter**, and *Ingvar Jørgensen*, studies in permeability. II. Effect of temperature on the permeability of plant cells to the hydrogen ion, A., i, 108.
- Stintzing, Hugo**, a new arrangement of the periodic system of the elements, A., ii, 425.
- Stock, Alfred**, nomenclature of compounds of silicon and boron, A., ii, 319.
- Stock, Alfred**, and *Carl Somieski*, silicon hydrides. I. The silicon hydrides resulting from magnesium silicide and acids, A., ii, 319.
- Stocker, H.** See *G. Meyer*.
- Stöve, Hans**. See *Max Busch*.
- Stoklasa, Julius**, does potassium play any part in the protein synthesis in plant cells? A., i, 354.
- the dependence of the resorption of the potassium ion on the presence of the sodium ion in the organism of the sugar-beet, A., i, 539.
- Stoll, Arthur**. See *Richard Willstätter*.
- Stoltzenberg, Hugo**, compounds containing hydrogen peroxide of crystallisation, A., i, 797.
- the pigments of molasses and the residues from the extraction of sugar from molasses. I., A., i, 829.
- Stone, N. E. van**. See *Moses Gomberg*.
- Storch, H.** See *F. Russell von Bichowsky*.
- Strachan, Earle K.**, non-ideal solutions; the activity of a sparingly soluble component, A., ii, 227.
- Straub, Walther**, the chemical constitution and pharmacological action of substances of the digitalis group, A., i, 618.
- Strecker, Wilhelm**, and *Charlotte Grossmann*, phosphine sulphides and phosphine selenides, A., i, 440.
- Strickland, Donald E.**, standardisation of the mercurials, A., ii, 271.
- strohecker, Robert**, aqueous solutions of carbonic acid, A., ii, 522.
- Strutt, (Hon.) Robert John**, an active modification of nitrogen. VII., A., ii, 481.
- Stuart, A. H.**, the physical properties of metals as functions of each other, A., ii, 124.
- Stubblefield, B. M.** See *B. S. Davison*.
- Stüber, W.** See *Georg Fendler*.
- Stückart, P.** See *Aladar Skita*.
- Stutterheim, Gustaaf Adolf**, formaldehyde-fat quotient of milk, A., ii, 118.
- Stutzer, Albert**, action of lead as a stimulant for plants, A., i, 704.

- Suchard, Ed.** See *Stefan von Niemontowski*.
Suchier, A. See *Kurt Hess*.
Sudborough, John Joseph, additive compounds of trinitrobenzene, T., 1339.
Sudborough, John Joseph. See also *Shunker Trimble Cadre*.
Sugiora, Kameatsu. See *Kaufman George Falk*.
Sullivan, Michael Xavier, and *Carl Voegtlín*, distribution in foods of the so-called vitamines and their isolation, A., i, 358.
 relation of lipoids to vitamines, A., i, 359.
Sumner, James B., direct estimation of urea and ammonia in muscle, A., ii, 655.
Sure, Barnett, and *W. E. Tottingham*, relation of amide nitrogen to the nitrogen metabolism of the pea plant, A., i, 876.
Svedberg, Theodor, the conduction of electricity in anisotropic liquids, A., ii, 211.
 chemical reactions in anisotropic liquids. I., A., ii, 306, 383.
Swanson, A. A., and *George Augustus Hulett*, determination of gases dissolved in waters and effluents, A., ii, 48.
Swanson, C. O., and *E. L. Tague*, study of certain conditions which affect the activity of proteolytic enzymes in wheat flour, A., i, 516.
Swart, Francine, and *C. Blomberg*, magnesium citrate in aqueous solution, A., i, 117.
Swarts, Frédéric, some aromatic fluoroderivatives and the nitration of *p*-fluorochlorobenzene, A., i, 133.
m-difluorobenzene and its nitration, A., i, 133.
Swensson, Torsten, potential changes on illuminating oxidising agents, A., ii, 548.
Symons, C. T. See *K. C. Browning*.
Synthetic Patents Co., *N*-alkylated imino-ketones, A., i, 326.
Szarvassy, E., saponification of chlorine derivatives of aliphatic hydrocarbons; (preparation of methyl alcohol), A., i, 541.
Szász, Ernest, rapid method for the estimation of manganese [in steel], A., ii, 647.
Szeberényi, P., detection of formic acid in vinegar, A., ii, 542.
Sztankay, Aba von, and *C. Geyer*, preparation of compounds of phenolphthalein and alkali carbonates, A., i, 146.

T.

- Taber, Stephen**, the growth of crystals under external pressure, A., ii, 420.
Tague, E. L. See *C. O. Swanson*.
Tahara, Joshihide. See *Rikō Majima*.
Takagi, Hiromu. *Kōtarō Honda*.
Takata, Kanetaro. See *Nagayoshi Nagai*.
Takayasu, N. See *Isidor Traube*.
Takeuchi, Isakichi, the system: sodium sulphate-sodium chromate-water, A., ii, 31.
Tambor, Josef, [with *A. Eckmann*, and *H. Berner*], hydroxychalkones, A., i, 831.
Tambor, Josef. See also *W. Mosimann*.
Tammann, Gustav [*Heinrich Johann Apollon*], the spectra of some intermetallic compounds, A., ii, 205.
 the mode of flow in crystalline solids, A., ii, 229.
Tanberg, A. P. See *Henry Clapp Sherman*.
Tarczynski, Stanislaw, colloidal carbon, and the decomposition of organic liquids by the electric arc, A., i, 625.
Tatum, Arthur L., influence of bile on autolysis, A., i, 863.
Taylor, Alonzo Englebert, and *Florence Hulton*, limit of assimilation of dextrose, A., i, 521.
Taylor, Alonzo Englebert, and *C. W. Miller*, Bence-Jones proteinuria, A., i, 584.
Taylor, Hugh Stott, interaction of hydrogen and chlorine under the influence of α -particles, A., ii, 207.
Taylor, Hugh Stott. See also *Max Bodenstein*.
Taylor, John. See *Augustus Edward Dixon*.
Taylor, Joseph. See *Harold Cornelius Bradley*.
Taylor, Robert Llewellyn, rapid method of estimating chloric acid and chlorates, A., ii, 193.
Taylor, W. A., and *Solomon Farley Acree*, the reaction of both the ions and molecules of acids, bases, and salts, A., ii, 423.
Tcherniac, Joseph, phthalonic acid and its derivatives, T., 1236.
Tchitchinazé, Nicolas. See *Michel Skossarewsky*.
Temple, Sterling. See *George Bell Frankforter*.
Tenne, A. See *Fritz Foerster*.
Teodoresco, E., the presence of phycoerythrin in *Nostoc commune*, A., i, 621.

- Terres, E.**, and **E. Mauguin**, fractional combustion of gases over copper oxide, A., ii, 149.
- Terres, E.**, and **F. Plenz**, influence of pressure on the combustion of explosive gas-air mixtures, A., ii, 134.
- Terwen, J. W.**, allotropy of cyanogen, A., i, 549.
theory of allotropy, A., ii, 420.
- Teutem, (Fr.) E. van**. See *Eduard Verschaffelt*.
- Thannhauser, Siegfried J.**, and **G. Dorfmüller**, nuclein metabolism. III. Complex crystallised cleavage products of yeast-nucleic acid, A., i, 522.
- Thiel, Alfred**, and **E. Meyer**, titration of iodine and iodides with arsenious acid, A., ii, 339.
- Thiel, Alfred**. See also *Welton J. Crook*.
- Thiele, Max**. See *Alfred Schaarschmidt*.
- Thieme, Bruno**, the validity of Faraday's law for flame electrolytes, A., ii, 469.
Faraday's law and the electrolytic separation of copper from flames, A., ii, 469.
- Thierfelder, Hans**, and **Otto Schulze**, separation of aminoethyl alcohol from the hydrolysates of phosphatides, A., i, 548.
- Thoburn, T. W.**, and **Paul J. Hanzlik**, the salicylates. II. Methods for the quantitative recovery of salicyl from urine and other body fluids, A., ii, 58.
- Thörner, Wilhelm**, nature of the injurious action of sulphur on plants and the foundations of buildings, A., i, 590.
- Tholin, T.** See *Hans von Euler*.
- Thomas, Adrian**, the effects of certain electrolytes and lipid solvents on the osmotic pressures and viscosities of lecithin suspensions, A., ii, 18.
- Thomas, Ruth**. See *James Flack Norris*.
- Thompson, F. C.**, the allotropy of iron, A., ii, 438.
the annealing of nickel brass (German silver), A., ii, 531.
surface tension effects in the inter-crystalline cement in metals and the elastic limit, A., ii, 601.
- Thompson, J. G.** See *Charles W. Bennett*.
- Thompson, Thomas G.**, preservation of iron and steel by means of passivifying factors, A., ii, 623.
- Thoms, Hermann [Friedrich Maria]**, Japanese oil of pepper; xanthoxylin, A., i, 412.
- Thomson, Andrew**. See *John Cunningham McLennan*.
- Thorne, Percy Cyril Lesley**, preparation and properties of colloidal carbon, T., 202; A., ii, 248.
- Thornton, William Mandell**, the ignition of gases by impulsive electrical discharge, A., ii, 306.
- Thornton, William M., jun.**, separation of thorium from iron with the aid of the ammonium salt of nitrosophenylhydroxylamine ("cupfeiron"), A., ii, 495.
- Thorp, L.**, [aryl esters of tetra-alkyl-diaminoisopropyl alcohol], A., i, 794.
- Thorp, L.** See also *E. A. Wildman*.
- Thrams, Willard D.** See *Charles H. Harris*.
- Thunberg, Torsten**, auto-oxidisable substances and systems of physiological interest. IV. Catalytic acceleration by potassium dichromate of oxygen absorption by lecithin, A., i, 627.
vital oxidation of succinic acid, A., i, 629.
alloxanthin, A., i, 635.
vital dehydrogenation of succinic acid in absence of oxygen, A., i, 863.
- Thurlow, Madge de G.** See *D. Wright Wilson*.
- Tiberg, Åke**, ethylenethioglycollic [ethylenedithiolacetic] acid and its oxidation products, A., i, 789.
some complex compounds of ethylenethioglycollic [ethylenedithiolacetic] acid, A., i, 790.
- Ticknor, Arthur A.** See *Norman A. Shepard*.
- Tiede, Erich**, active nitrogen, A., ii, 615.
the decomposition of alkali and alkaline-earth azides in a high vacuum for the preparation of pure nitrogen, A., ii, 616.
preparation and phosphorescence of pure magnesium sulphide. I., A., ii, 619.
- Tilgner, M.**, estimation of total hardness (in waters) by potassium palmitate according to Blacher's method, A., ii, 577.
- Tillmans, Josef**, and **H. Mildner**, testing distilled water as regards its suitability for the preparation of salvarsan solutions, A., ii, 108.
- Tingle, Alfred**, detection of nitrates in presence of organic matter, A., ii, 195.
- Tingle, Alfred**, and **Allan A. Ferguson**, factors connecting the concentration and the optical rotatory power of aqueous solutions of nicotine, A., ii, 656.
- Tingle, Alfred**. See also *John Bishop Tingle*.

- Tingle, John Bishop**, and **Alfred Tingle**, rapid method of converting serap platinum into chloroplatinic acid, A., ii, 190.
- Tinker, Frank**, the microscopic structure of semipermeable membranes and the part played by surface forces in osmosis, A., ii, 298.
- the vapour pressures of binary liquid mixtures; kinetic theory based on Dieterici's equation, A., ii, 516.
- Tinker, Frank**. See also *Adrian John Brown*.
- Titus, Esbon Y.** See *Harry A. Curtis*.
- Tjelni, S.** See *L. Pisarshevski*.
- Tönius, W.**, preparation of diphenylamine-sulphuric acid reagent, A., ii, 534.
- Tommasi, G.** See *Francesco Scurti*.
- Toorenburg, J. A. van**. See *Leopold van Itallie*.
- Torossian, Gregory**, rapid assay of lead, A., ii, 345.
- Totani, Ginzaburo**, feeding experiments with a dietary in which tyrosine is reduced to a minimum, A., i, 860.
- Tottenham, W. E.**, increase of nitrogen in fermenting manures, A., i, 460.
- Tottenham, W. E.** See also *Barnett Sure*.
- Tower, Olin Freeman**, the viscosity of certain alcoholic solutions, A., ii, 295.
- Traaen, A. E.**, influence of moisture on the nitrogen changes in soils, A., i, 454.
- Trambies, J.**, steam apparatus with constant water supply, A., ii, 184.
- Traube, Isidor**, and *T. Marusawa*, swelling and germination of plant seeds, A., i, 106.
- Traube, Isidor**, and *N. Takayasu*, catalytic action of dyes on the formation of colloidal gold. I, A., ii, 479.
- Traube, Wilhelm**, the so-called alkali ozonates, A., ii, 613.
- Traube, Wilhelm**, and *Alice Goodson*, electrolytic preparation of chromous salts from chromic salts; some new salts of bivalent chromium, A., ii, 625.
- Traube, Wilhelm**, and *Willibald Pas-sarge*, behaviour of chromous salts towards acetylene; reducing action of salts of bivalent chromium, A., ii, 626.
- Traubenberg, Heinrich (Freiherr) Rausch von**, the constitution of radioactive atoms, A., ii, 6.
- Trautz, Max [Theodor]**, reaction kinetics and additive nature of the internal heat of ideal gases, A., ii, 422.
- Trautz, Max**, and *Claus Friedrich Hinck*, the equilibrium of nitrosyl chloride, $2\text{NO} + \text{Cl}_2 \rightleftharpoons 2\text{NOCl}$; a confirmation of the additive law of internal atomic heats, A., ii, 304.
- Treadwell, Frederick Pearson**, and *C. Mayr*, a new method for the iodometric estimation of thiocyanic acid and hydrogen sulphide, A., ii, 264.
- Treppmann, Wilhelm**. See *Karl von Auwers*.
- Trevan, J. W.** See *William Holdsworth Hurtley*.
- Trillat, [J.] Auguste**, a colorimetric method used by the Romans to characterise soft waters, A., ii, 269.
- Trowbridge, Perry Fox**. See *Helman Rosenhal*.
- Trümpler, G.**, uranous-uranyl photo-electric cells, A., ii, 9.
- Trumbull, H. L.**, [determination of] molecular weights of gases by an evaporation method, A., ii, 96.
- Truniger, Ernst**. See *Paul Liechti*.
- Truog, Emil**, cause and nature of soil acidity with special regard to colloids and adsorption, A., i, 591.
- estimation of carbon dioxide and a new form of absorption tower adapted for the titrimetric method, A., ii, 113.
- new apparatus for the estimation of soil carbonates and new methods for the estimation of soil acidity, A., ii, 404.
- Truog, Emil**. See also *Victor Lenher*.
- Tryhorn, Frederick Gerald**. See *Edward Charles Cyril Baly*.
- Tsakalotos, Demetrios E.**, camphorated chloral, A., i, 53.
- physical characters and chemical reactions of aspirin, A., ii, 585.
- Tsakalotos, Demetrios E.**, and *Stavros Horsch*, aspirin. IV. Solidification, in concentric rings, of moist or dissolved aspirin, A., i, 819.
- aspirin. III. Anomalies of the decomposition of aspirin by water, A., ii, 94.
- Tsakalotos, Demetrios E.**, and *B. Papa-constantinou*, hydrochloride and hydrobromide of *d*-pinene; *d*-camphene (austracamphene), A., i, 658.
- Tschermak, Gustav**, errors in silicate analyses; composition of alkali-free aluminum augites, A., ii, 145.
- Tschernjaev, I.** See *Leo Alexandrovitsch Tschugaev*.
- Tschirch, Alexander**, and *Cornelis de Jong*, amber (succinate), A., i, 733.

- Tschischevski, N.**, the occurrence and influence of nitrogen in iron and steel, A., ii, 141.
- Tschitschibabin, A'lexei E.** and **M. D. Rjazancev**, diazotisation and diazorations of 2-aminopyridine, A., i, 224.
- Tschugaev, Leo Alexandrovitsch**, and **Vitalius G. Chlopin**, the series of hydroxypentammineplatinic salts, A., ii, 105.
- Tschugaev, Leo Alexandrovitsch**, and **Stanislav Stanislavovitsch Kiltinovic**, ammoniacal derivatives of platinous nitrite, T., 1286.
- Tschugaev, Leo Alexandrovitsch**, and **W. Lebedinski**, two series of complex derivatives of bivalent platinum, corresponding with the index of co-ordination 6, A., i, 21.
- a new series of platinum compounds analogous to Cossa's salts, A., i, 204.
- Tschugaev, Leo Alexandrovitsch**, and **I. Tscherenjaev**, the series of triaminocquo salts of bivalent platinum, $[Pt_3NH_3, H_2O]X_2$, A., ii, 106.
- Tsuji, Kwanji**, the influence of carbohydrate and fat on protein metabolism with special reference to the output of sulphur, A., i, 231.
- the output of creatine in glycosuria, A., i, 233.
- Tsujimoto, Mitsumaru**, a highly unsaturated hydrocarbon in shark liver oil, A., i, 786.
- Tucker, Stanley Horwood**. See **George Senter**.
- Tuining, R. W.** See **D. Crispio**.
- Tunmann, Otto**, applied plant microchemistry; microchemistry of gentisin and of the yellow colouring matter in *Frasera carolinensis*, A., i, 874.
- applied plant microchemistry. XI. Microchemical detection of baptisin in *Baptisia tinctoria* (roots), A., ii, 59.
- a frangula substitute, the barks of *Rhamnus carniolica* and *Alnus glutinosa*, A., ii, 60.
- analysis of rhamnus barks, A., ii, 404, 504.
- microchemical toxicology, A., ii, 502.
- microchemical distinction of morphine from codeine, A., ii, 655.
- Turner, Benjamin Bernard**, chemical composition of *Oscillaria prolifica*, A., i, 621.
- Turner, Eustace Ebenezer**, the "cyclic theory" of the constitution of complex inorganic compounds, T., 1130.
- Turner, W. A.**, estimation of vanadium by "cupferron" (ammonium nitroso-phenylhydroxylamine), A., ii, 347.
- separation of vanadium from phosphoric and arsenic acids and from uranium, A., ii, 540.
- Turski, J. F. d'**, process for the introduction of amino-groups into aromatic compounds, A., i, 313.
- Tuttle, J. B.** See **C. E. Waters**.
- Tuttle, John Ross**. See **Marston Taylor Bogert**.
- utton, Alfred Edwin Howard**, the monoclinic double sulphates containing ammonium; composition of the double sulphate series, A., ii, 38.
- Tveten, Arne**, crystallisation in a magnetic field, A., ii, 413.
- Twomey, Thomas J.** See **Gustav Egloff**, and **Walter F. Rittman**.
- Tyrer, Daniel**. See **William Edward Garner**.
- U.**
- Uchida, So**, some [Japanese] essential oils, A., i, 218.
- Udby, Olaf**. See **Heinrich Goldschmidt**.
- Uhler, Horace S.** See **Percy E. Browning**.
- Ubrig, Cl.** See **Kurt Hess**.
- Ullmann, Fritz**, [1-chloroanthraquinone-2-carboxylic acid]; correction, A., i, 649.
- Ullmann, Fritz**, and **Hans Bincer**, 1-chloroanthraquinone-2-carboxylic acid, A., i, 483.
- Ullmann, Fritz**, and **Oskar Eiser**, 1,3-dibromoanthraquinone, A., i, 823.
- Ulpiani, Celso**, constitution of the fulminic acids. VIII. Metafulminic acid, A., i, 253.
- Ultée, Arnoldus Johannes**, the milk-juice of *Tubernae montana sphaerocarpa*, A., i, 358.
- Umeda, Nobuyoshi**, the influence of fat and carbohydrate on the excretion of endogenous purines in the urine of dog and man, A., i, 233.
- influence of the nature of the diet on the retention of protein, A., i, 614.
- Underhill, Frank Pell**, carbohydrate metabolism. XI. Rôle of calcium in the regulation of the sugar content of the blood, A., i, 685.
- carbohydrate metabolism. XII. Influence of sodium carbonate on the sugar content of the blood and on adrenaline hyperglycaemia and glycosuria, A., i, 685.

- Underhill, Frank Pell**, carbohydrate metabolism. XIII. Influence of magnesium salts on the sugar content of the blood and on adrenaline hyperglycaemia and glycosuria, A., i, 686.
- creatine metabolism. I. Possible inter-relations between acidosis and creatine formation, A., i, 865.
- creatine metabolism. II. Influence of alkali on creatine elimination during inanition A., i, 865.
- Underhill, Frank Pell**, and **Emil J. Baumann**, creatine metabolism. III. Influence of alkali on the creatinuria of phloridzin glycosuria, A., i, 865.
- creatine metabolism. IV. Relationship of creatinuria to carbohydrate metabolism and acidosis, A., i, 865.
- inter-relations of blood fat and blood sugar contents of dogs under the influence of hydrazine, A., i, 869.
- Underhill, Frank Pell**, and **L. Jean Bogert**, alterations in the output of certain urinary constituents as determined by changes in the character of the diet, A., i, 864.
- V.**
- Vageler, Hans**, action of manganese, iron, and copper on the growth of plants, A., i, 457.
- Valenta, Eduard**, detection of silver chloride on photographic plates, etc., A., ii, 397.
- Vallery, Lucien**, the stability of hypochlorites in very dilute solutions; consequences from the point of view of their use for the sterilisation of waters (javelisation), A., i, 302.
- Vanino, Ludwig**, history of sympathetic inks, A., ii, 135.
- Vanino, Ludwig**, and **F. Hartwagner**, iodometric estimation of gold, A., ii, 582.
- Vanino, Ludwig**, and **F. Herzer**, [estimation of] benzoyl peroxide, A., ii, 117.
- Vanino, Ludwig**, and **Fr. Mussgnug**, bismuth acetylsalicylate [*o*-acetoxybenzoate], A., i, 263.
- Vanzetti, Bartolo Lino**, derivatives of methylvanillin, and a new condensation product, A., i, 147.
- electrolysis of organic acids: phenyl-propionic acid, A., i, 263.
- Vanzetti, Bartolo Lino**, and **V. Gazzabin**, heats of formation of additive organic compounds. IV. Picrates, A., ii, 175.
- Vargolicz, B.** See **Adolf Kaufmann**.
- Vaabel, Wilhelm**, and **A. Knocke**, behaviour of antimony deposits towards hypochlorite, A., ii, 274.
- Vecchiotti, Luigi**. See **Riccardo Ciusa**.
- Vegard, L.**, the structure of silver crystals, A., ii, 186.
- results of crystal analysis, A., ii, 405, 593.
- the electric absorption of gases in vacuum tubes, A., ii, 511.
- Vegezzi, G.** See **Charles Dhéré**.
- Ventura, C.** See **G. Quagliariello**.
- Venturi, A.** See **Gaetano Magnanini**.
- Verbeek, Paul**, a safe automatic gas seal for the preservation of reduced solutions, A., ii, 25.
- Verein fur Chemische Industrie in Mainz**, preparation of formaldehyde from methane, A., i, 200.
- Vereinigte Chemische Werke Aktiengesellschaft**, preparation of a crystalline, non-hygroscopic salt of choline, A., i, 548.
- Verkade, P. E.**, glutaconic acid. I. and II., A., i, 249, 545.
- the velocity of hydration of the anhydrides of some fatty acids. II. and III., A., ii, 234, 607.
- determination of ring-tension from thermal data, A., ii, 374.
- Verkade, P. E.** See also **Jacob Böseken**.
- Verschaffelt, Eduard**, and (*Frl.*) **E. van Teutem**, alterations in the microscopic structure of bread during the process of becoming stale, A., i, 466.
- Verschaffelt, Jules Émile**, and **Ch. Nicaise**, the viscosity of liquefied gases. IV. Apparatus and method. V. Preliminary measurements on liquid mixtures of oxygen and nitrogen, A., ii, 471.
- Versluys, J.**, chemical actions in the subsoil of the dunes, A., i, 624.
- Veselý, Victor**. See **Emil Votoček**.
- Vesterberg, K. A.**, lanthanum acetate and its hydrolysis, A., i, 367.
- Vicari, G.**, detection of safflower in saffron, A., ii, 163.
- Vickery, Hubert Bradford**, an investigation of the chromate method for separating the alkaline earths, A., ii, 197.
- Viehoever, Arno, Lewis H. Chernoff**, and **Carl Oscar Johns**, saponin from *Yucca angustifolia*, A., i, 258.
- distribution of quercimeritrin in the cotton plant (*Gossypium herbaceum*), A., i, 357.
- Viehoever, Arno, George Augustus Geiger**, and **Carl Oscar Johns**, cedrin, a glucoside from the seeds of *Simaba cedron*, A., i, 358.

- Viehoever Arno**, *Carl Oscar Johns*, and *Carl Lucas Alsberg*, cyanogenesis in plants; *Tridens flavus* (tall red top), A., i, 538.
- Viehoever, Arno**. See also *Carl Oscar Johns*.
- Villedieu** and **Manceau**, recognition of picric acid in urine in the presence or absence of biliary pigments, A., ii, 55.
- Villiers**, [Charles] *Antoine [Théodore]*, molecular transformations of precipitates, A., ii, 390.
- Vinal**, *George W.*, and *Wm. M. Bovard*, inclusions in silver voltameter deposits, A., ii, 213.
- Vincent**, *V.*, circulation of manganese in natural waters, A., ii, 187.
- Vinograd-Vilchur**, *Mariam*. See *Donald D. van Slyke*.
- Vintilescu**, *J.*, rôle of glucosides in plants, A., i, 782.
the destruction of the organic substance for the detection of mineral poisons, A., ii, 398.
- Vintilescu**, *J.*, and *Alin Popesco*, biochemical reaction of rancid fats, A., ii, 59.
- Voegtlín**, *Carl*. See *Michael Xavier Sullivan*.
- Vogel**, *O.* See *O. Bauer*.
- Voigt**, *J.*, the distribution and fate of colloidal silver in the mammalian body. IV., A., i, 452.
- Voigt**, *K.* See *Arthur Michael*.
- Vollgraff**, *J. A.* See *Willem Paulinus Jorissen*.
- Volmer**, *M.*, decay of the activity induced in chlorine by the action of light and the combination of chlorine and hydrogen, A., ii, 507.
- Vorosheov**, *Nicolai N.*, [with *A. Domke*, *A. Portner*, *J. Aronschtam*, and *St. Ratschinski*], bisulphite compounds of hydroxyazo-colouring matters. II., A., i, 293.
- Votoček**, *Emil*, and *R. Potměšil*, estimation of phloroglucinol and resorcinol by means of furfuraldehyde, A., ii, 542.
- Votoček**, *Emil*, and *Victor Veselý*, resolution of racemic sugars by means of optically active amyl mercaptans; certain mercaptals, A., i, 308.
- Vouk**, *Valentin*, microchemical chitin reaction, A., ii, 117.
- Vries**, *Oto de*, a chemical paradox, A., i, 56.
- Vuafart**, *L.*, detection of arsenic in beverages, A., ii, 148.

W.

- Waard**, *S. de*. See *Jacob Böeseken*.
- Wacker**, *Leonhard*, the physical and chemical processes taking place in surviving muscular tissue, considered as the causes of death rigor, A., i, 616.
- Waddell**, *John*, the position of the abundant elements in the periodic system, A., ii, 426.
volumetric estimation of lead, A., ii, 579.
- Wadsworth**, *Charles*, 3rd. See *Theodore William Richards*.
- Wächter**, *Hans*. See *Paul Horrmann*.
- Waentig**, *Percy*, and *Douglas McIntosh*, liquid chlorine as a solvent; cryoscopic determinations at low temperatures, A., ii, 373.
- Wagenaar**, *M.*, rapid method of estimating alkali in potable water, A., ii, 269.
- Wagenmann**, *Karl*, the quantitative estimation of nickel with dimethylglyoxime, A., ii, 53.
- Waggaman**, *W. H.*, rapid method for the estimation of carbon dioxide, A., ii, 268.
- Wagner**, *H.*, estimation of phytosterol by precipitation with digitonin; an apparatus for use in the method, A., ii, 541.
- Wagner**, *R. J.*, the estimation of the hydron concentration of very small quantities of liquids, A., ii, 392.
- Wakeman**, *Alfred John*. See *Thomas Burr Osborne*.
- Waldron**, *Cecil Hamersley*, obituary notice of, T., 431.
- Walker**, (*Miss*) *Nellie*. See *Alexander McKenzie*.
- Walker**, *Thomas Leonard*, separation and estimation of nickel, A., ii, 152.
spencerite, a new zinc phosphate from British Columbia, A., ii, 629.
- Wallace**, *Curtis Clayton*. See *Gregory Paul Baxter*.
- Wallach**, *Otto*, [with *Hans Berthold*, *Louis Augspurger*, *Hans Woerlitzer*, and *Friedrich Pohle*], synthesis of terpineols and terpins, A., i, 213.
- Wallach**, *Otto*, *Mathilde Gerhardt*, and *W. Jessen*, a method for the conversion of cyclohexanones into cyclopentanones, A., i, 487.
- Walpole**, *George Stanley*, "plate" forms of ultrafiltration apparatus, A., ii, 480.
- Walpole**, *George Stanley*. See also *Henry Hallett Dale*.
- Walsh**, *Michael J.* See *Hugh Ryan*.

- Waltenberg, R. G.** See *George Kimball Burgess*.
- Walther, Reinhold von**, and *W. Grieshammer*, aromatic-aliphatic diazoamino-compounds [arylazodicyanodiamide], A., i, 170.
- Walther, Reinhold von**, and *R. Hübner*, conversion of aldehydes and ketones into α -aminonitriles and derivatives of the latter, A., i, 559.
- Walton, James Henri**, and *Albert Brann*, effect of dissolved substances on the velocity of crystallisation of water, A., ii, 233.
- effect of dissolved substances on the velocity of crystallisation of water. II. Existence of hydrates in solution as an explanation of the retarding effect of the solute on the velocity of crystallisation of water, A., ii, 424.
- Walton, James Henri**, and *De Witt O. Jones*, catalytic decomposition of hydrogen peroxide in non-aqueous solutions, A., ii, 609.
- Walton, James Henri**, and *Harold A. Lewis*, partition coefficients of hydrogen peroxide between water and certain organic solvents, A., ii, 232.
- Warburg, Emil**, calibration of thermometers, A., ii, 290.
- ozonisation of liquid oxygen by radiation, A., ii, 526.
- Warneford, Francis H. S.** See *Victor John Harding*.
- Warynski, T.**, and *S. Kourapatwinska*, isothermal equilibrium of the system: crystallised CaCO_3 and aqueous NH_4Cl , A., ii, 605.
- Waser, Ernst**, derivatives of 1:2:3:4-tetrahydro- β -naphthylamine, A., i, 643.
- Wasteneys, Hardolph**, rate of oxidations in reversed artificial parthenogenesis, A., i, 350.
- Wasteneys, Hardolph**. See also *Jacques Loeb*.
- Wastenson, Hugo**, estimation of silver in protein preparations, A., ii, 577.
- Watanabe, C. K.** See *Thomas Addis*.
- Watanabe, Walter K.**, and *Albert C. Crawford*, does the pituitary gland contain adrenaline or a compound similar to it? A., i, 300.
- Watanabe, Walter K.** See also *Albert C. Crawford*.
- Waterman, H. I.**, influence of age and treatment with liquid air on the sugar-content of potatoes, A., i, 359.
- Waters, C. E.**, and *J. B. Tuttle*, qualitative tests for gum arabic and its quantitative estimation, A., ii, 400.
- Watkins, Charles**, and *Harry Clary Jones*, conductivity and dissociation of some rather unusual salts in aqueous solution, A., ii, 73.
- Watson, (Miss) Amy Rose**, synthesis of 8-phenyl- γ -benzopyrone and a γ -phenanthropyrone, T., 303; A., i, 414.
- Watson, Edwin Roy**, and *David B. Meek*, the nature of the vibrations causing the colour of dyes, A., ii, 2.
- Watson, Edwin Roy**, and *Kshitish Chandra Mukherjee*, preparation of new phenanthraquinone dyes, A., i, 155.
- Watson, Edwin Roy**. See also *Vishnu Ram Medhi, David B. Meek, and Kshitish Chandra Mukherjee*.
- Watt, Muriel**. See *James Flack Norris*.
- Weaver, E. R.**, colorimetric estimation of acetylene, A., ii, 275.
- Weber, H. C. P.**, and *H. A. Winkelmann*, systematic separation of the anions of Group I; anions the silver salts of which are insoluble in nitric acid, A., ii, 637.
- Weber, H. C. P.** See also *J. M. Welch*.
- Weber, Sophus**. See *Heike Kamerlingh Onnes*.
- Webster, John**, excretion and secretion of salvarsan and neo-salvarsan, A., i, 696.
- Wedekind, Edgar**, and *Th. Goost*, the asymmetric nitrogen atom. I. Stereo-isomerism of compounds containing two nitrogen atoms of unlike asymmetry, A., i, 671.
- Wedekind, Edgar**, and *Woldemar Mayer*, the asymmetric nitrogen atom. XLIX. Behaviour of tertiary aromatic bases towards alkyl haloids, A., i, 670.
- Weel, J. Ter**. See *Arnold Frederik Holleman*.
- Wegelin, Gustav**, a new method for the purification of colloidal solutions, A., ii, 520.
- Wegscheider, Rudolf**, theory of indicators used in acidimetry, A., ii, 108.
- the coexistence of phases subjected to different pressures, A., ii, 299.
- measurement of the conductivity of organic acids, A., ii, 467.
- the electrolytic dissociation of tribasic acids and the derived ester acids, A., ii, 468.
- the stepwise dissociation of dibasic acids. III., A., ii, 468.
- aqueous solutions of ammonium carbonate and hydrolysis in general. A., ii, 617.

- Wegscheider, Rudolf, and Ernst Späth,** derivatives, especially esters and acetyl compounds, of opianic, bromo- and nitro-opianic acids, A., i, 602.
- Weide, (Mlle.) O. B. van der.** See *Jacob Boësken*.
- Weigert, Fritz,** absorption spectra and a simple method for determining them, A., ii, 545.
- Weimarn, Petr Petrovitsch von,** ultramicroscopy of crystallisation phenomena. I., A., ii, 176.
- materials for experimental dispersoidology. I. Preparation of any substance in any degree of dispersion, A., ii, 176.
- materials for experimental dispersoidology. II. Gels and the process of gelatinisation, A., ii, 177.
- materials for experimental dispersoidology. III. Coloured solutions of sulphur, A., ii, 185.
- Weimarn, Petr Petrovitsch von, and I. B. Kagan,** materials for experimental dispersoidology. IV. Disperse systems of cupric chloride in benzene, A., ii, 177.
- Weinland, Rudolf Friedrich, and Friedrich Paschen,** the ferric salts of unsubstituted mono- and poly-basic organic acids, A., i, 314.
- Weinland, Rudolf Friedrich, and Hermann Spanagel,** chrombenzoates, A., i, 726.
- Weintraub, Erechiel,** fibrox, A., ii, 30.
- Weise, Kurt.** See *Fritz Sommer*.
- Weiser, Harry B.,** modified Victor Meyer apparatus, A., ii, 415.
- Weiss, Moritz,** a new reaction of bile pigments, A., ii, 588.
- Weiss, Richard,** simple apparatus for the estimation of small quantities of albumin, A., ii, 163.
- Weisse, Gottfried von, and Meyer Lévy,** dissociation constants of some alkaloids, A., i, 832.
- Weitz, Ernst,** nitrogen compounds of gold, A., ii, 39.
- Welch, J. M., and H. C. P. Weber,** separation of metals of the tin group, A., ii, 398.
- Welker, William H., and Frederick H. Falls,** blood-serum. I. Estimation of non-colloidal nitrogen, A., ii, 588.
- Wells, Arthur E.,** reduction of barium sulphate to sulphide, A., ii, 565.
- Wells, C. A., and P. V. Ewing,** cotton-seed meal as an incomplete food, A., i, 861.
- Wells, Harry Gideon,** accumulation of uric acid in the tissues during suppression of urine, A., i, 776.
- Wells, Harry Gideon, and O. F. Hedenburg,** toxicity of carotin, A., i, 868.
- Wells, Roger Clark,** solubility of calcite in water in contact with the atmosphere and its variation with temperature, A., ii, 32.
- Welwart, N.,** estimation of tin in tin ashes, A., ii, 451.
- Wensink, (Frl.) W. D.** See *J. V. Dubsky*.
- Wernecke, E.,** phenylethylhydantoin (nirvanol) a new hypnotic and sedative, A., i, 869.
- Werner, Alfred,** [with J. A. Siemssen], trithiocyanatoquodiamminochromium, A., i, 798.
- Werner, Emil Alphonse,** the constitution of carbamides. III. The reaction of urea and of thiourea with acetic anhydride; note on potassium thiourea, T., 1120.
- the preparation of cyanamide from calcium cyanamide, T., 1325.
- Wertenstein, Louis,** the charge of radioactive recoil, A., ii, 69.
- Wertenstein, Louis.** See also *Jean Danysz*.
- West, C. J.** See *Phæbus A. Levene*.
- Wester, D. H.,** the ureolytic action of soja beans, A., ii, 502.
- Westgren, Arne,** the accelerating action of nuclei on the reduction mixture of gold chloride and hydrogen peroxide, A., ii, 301.
- determination of Avogadro's constant from measurements of the Brownian movement of particles in gold hydrosols, A., ii, 301.
- method of determining the frequency of particles of different sizes in disperse systems, A., ii, 301.
- Westphal, Wilhelm H.,** the fluorescence of iodine vapour. I., A., ii, 507.
- Wewerinke, J.** See *B. Kühn*.
- Weyland, H.** See *Johannes Boes*.
- Wheeler, Alvin Sawyer, and V. C. Edwards,** a new case of tautomerism; 1:4:5:6-tetrahydroxynaphthalene, A., i, 392.
- Wheeler, E. G.** See *Percy E. Spielmann*.
- Wheeler, Richard Vernon.** See *David Trevor Jones*.
- Wherry, Edgar T.,** alunite, psilomelanite, and titanite, A., ii, 627.
- Whipple, G. H.** See *C. W. Hooper*.
- Whitcomb, William Henry.** See *Gregory Paul Baxter*.
- White, Bernard S.,** colorimetric method for the determination of copper and iron in pig lead, lead oxides, and lead carbonate, A., ii, 115.

- Whyte, S.**, the corrosion of iron and steel, A., ii, 440.
- Wibaut, Johan Pieter**, exchange of halogen in aromatic compounds for the amino-group under the influence of finely divided nickel, A., i, 469.
- Wichelhaus, Hermann**, and **M. Lange**, the constituents of wood which give colour reactions, A., i, 874.
- Wickenden, Leonard**, and **John W. Hassler**, method for comparing the decolorising efficiency of charcoals, A., ii, 447.
- Widman, Oskar**, benzoylphenylethylene oxide, a third isomeride of dibenzoylmethane, A., i, 406, 655.
- Wiedmann, Gebhard**, the selective and normal photoelectricity of potassium, A., ii, 508.
- Wieland, Heinrich**, and **Hermann Sorge**, bile acids. II. Choleic acid, A., i, 710.
- Wiernik, Maximilian**. See *Gerhard Grüttner*.
- Wiesel, John B.** See *H. H. Lloyd*.
- Wildman, E. A.**, and **L. Thorp**, [hydrochlorides of γ -dialkylaminopropyl alcohol], A., i, 795.
- Willard, P. S.**, and **Charles James**, separation of erbium from yttrium, I., A., ii, 434.
- Willard, P. S.** See also *Charles James*.
- Willcox, Marguerite**, and **Roger Frederick Brunel**, reversible replacement of alcohols in aldehyde-alcoholates, A., i, 710.
- Williams, Howell**. See *Henry Wren*.
- Williams, Percy**. See *Richard Seligman*.
- Williams, Robert R.**, chemical nature of the vitamines. I. Antineuritic properties of the hydroxypyridines, A., i, 697. the chemistry of the vitamines, A., i, 862.
- Williams, Robert R.**, and **Atherton Seidell**, chemical nature of the vitamines. II. Isomerism in natural antineuritic substances, A., i, 770.
- Williamson, E. D.** See *John Johnston*.
- Willows, Richard Smith**, and **H. Trevelyan George**, the absorption of gas by quartz vacuum tubes, A., ii, 365.
- Willows, Richard Smith**. See also *Frederick J. Harlow*.
- Willstätter, Richard**, and **Arthur Stoll**, the assimilation of carbon dioxide, A., i, 105.
- Wilson, D.**, and **I. Roberts**, estimation of benzene, toluene, and solvent naphtha in light oils, etc., A., ii, 453.
- Wilson, D. Wright, Thornton Stearns**, and **J. H. Janney, jun.**, the excretion of acids and ammonia after parathyroidectomy, A., i, 190.
- Wilson, D. Wright, Thornton Stearns**, and **Madge de G. Thurlow**, the acid-base equilibria in the blood after parathyroidectomy, A., i, 177.
- Wilson, (Miss) Edith Gertrude**, and **William Ringrose Gelston Atkins**, the estimation of reducing sugars by Kendall's solution and the construction of a table indicating the reducing power of laevulose, A., ii, 399. methods for estimation of four or more carbohydrates involving oxidation with bromine, A., ii, 652.
- Wilson, Frank N.**, the production of atrio-ventricular rhythm in man after the administration of atropine, A., i, 188.
- Wilson, Harold Albert**, electrical conductivity and luminosity of flames containing salt vapours, A., ii, 72.
- Wilson, John Arthur**, theory of colloids, A., ii, 604.
- Wilson, John Arthur**. See also *Henry Richardson Procter*.
- Windaus, Adolf**, cholesterol. XXIV. Transformation of cholesterol into coprosterol, A., i, 813.
- Winfield, George**, and **Frederick Gowland Hopkins**, the influence of pancreatic extracts on the production of lactic acid in surviving muscles, A., i, 189.
- Winkelmann, H. A.** See *H. C. P. Weber*.
- Winkler, Ludwig Wilhelm**, the preparation of anhydrous ethyl alcohol, A., i, 245. estimation of bromine and iodine in the presence of chlorides, A., ii, 109. bromine ion content of sea-water, A., ii, 184. water analysis. II. and III., A., ii, 194, 448. iodide and iodate ion content of sea-water, A., ii, 389. estimation of dissolved oxygen in polluted waters, A., ii, 487. detection and estimation of nitrates in waters, A., ii, 490. the iodine content of Stassfurt sylvine and carnallite, A., ii, 613. estimation of hydrogen sulphide in water, A., ii, 640. the estimation of free carbonic acid in water at its place of origin, A., ii, 646. the copper sulphate test for the detection of free carbon dioxide (in water), A., ii, 646.

- Winninghoff, W. K.** See *Frederick G. Keyes*.
- Winter, O. B.**, modification of McCruden's method for calcium, for the estimation of calcium and strontium in the presence of phosphoric acid and a small amount of iron, A., ii, 492.
- Winterstein, Ernst**, and *F. Wünsche*, constituents of the maize embryo, A., i, 538.
- Winterstein, Hans**, the osmotic and colloidal properties of muscle, A., i, 615.
- narcosis. IV. Narcosis and permeability, A., i, 616.
- Wippleman, W.** See *Adolf Sieverts*.
- Wischo, F.** See *Robert Kremann*.
- Wisselingh, C. van**, occurrence of chitin and cellulose in bacteria, A., i, 698.
- Wissing, F.** See *Kurt Hess*.
- Wiszniewska, (Mlle.) Janina**, antiphenoxy serum, A., i, 103.
- Withey, W. H.**, the analysis of aluminium and its alloys, A., ii, 538.
- Withrow, James Renwick**, densities of alkali metal amalgams and mercury, A., ii, 431.
- Witt, Joshua C.** See *Marks Neidle*.
- Witt, Otto Nikolaus**, obituary notice of, T., 428.
- Wittka, Franz**. See *Paul Pfeiffer*.
- Wittkop, P.** See *Paul Pfeiffer*.
- Witzemann, Edgar John**, the rôle of atmospheric oxygen in the oxidation of dextrose with potassium permanganate in the presence of varying amounts of alkali; the products of oxidation, A., i, 372.
- Wöllmer, W.**, the bitter principles of hops. I., A., i, 494.
- Woerlitzer, Hans**. See *Otto Wallach*.
- Wolchow, Herbert**, triazoles from dibenzamide or di-p-toluidine and hydrazine salts, A., i, 844.
- Wolff, Jules**, a substance which coagulates inulin and accompanies it in plant tissues, A., i, 458.
- Wolfenstein, Richard**, preparation of esters of trichlorobutyl alcohol, A., i, 366.
- preparation of esters of amino-acids; amino-acid esters of acetone-chloroform, A., i, 374.
- Wolfenstein, Richard**, and *Frank Hartwich*, the Friedel-Crafts' ketone synthesis in the pyridine series, A., i, 222.
- Wolfenstein, Richard**, *A. Loewy* and *Marcel Bachstez*, esters of *tert.*-trichlorobutyl alcohol and their pharmacology, A., i, 197.
- Wolfrum, L.**, and *Johannes Pinnow*, ester acids of lemon juice, A., i 629
- Wolkoff, M. I.**, soil colloids. I. Flocculation of soil colloid solutions, A., i, 784.
- Wood, A. B.**, and *Walter Makower*, the recoil of radium-D from radium-C, A., ii, 6.
- Wood, A. B.** See also (*Sir*) *Ernest Rutherford*.
- Wood, Arthur Samuel**. See *Thomas Slater Price*.
- Wood, D. Orson**, the vapour pressure of concentrated sugar solutions, A., ii, 82.
- Wood, Henry**. See *George Senter*.
- Wood, John Kerfoot**, and (*Miss*) *Vera Kathleen Black*, amphoteric metallic hydroxides. III., T., 164; A., ii, 188.
- Woodroffe, David**. See *Julius Berend Cohen*.
- Woodyatt, Rollin Turner**. See *W. D. Sansum*.
- Wosolsobe, E.**, and *Julius Zellner*, chemistry of heterotropic phanerogams. II., A., i, 239.
- Wren, Henry**, and *Howell Williams*, the phenylsuccinic acid series. III. The optically active phenylsuccinic acids and their derivatives, T., 572; A., i, 482.
- Wright, Frederic Eugene**, petrographic microscope in analysis, A., ii, 571.
- Wright, Robert**, molecular weight determinations in bromine by the air-current method, T., 1134.
- vapour-pressure investigations of the fusion products of iodine with sulphur, selenium and tellurium, A., ii, 29.
- Wülfing, Johann A.**, [sodium calcium lactate], A., i, 708.
- preparation of calcium o-acetoxybenzoate, A., i, 728.
- Wünsche, F.** See *Ernst Winterstein*.
- Würgler, J.** See *Paul Pfeiffer*.
- Würschmidt, J.**, volume changes of amalgams, A., ii, 517.
- Wulzen, Rosalind**, pituitary gland; its effect on growth and fission of planarian worms, A., i, 692.
- Wunder, K.** See *Walther Borsche*.
- Wuppermann, G.** See *Max Le Blanc*.
- Wuyts, L.**, a new method for the analysis of mixed and spent acids, A., ii, 195.
- Wyckoff, Ralph W. G.**, apparatus for determining the ions in a solution, A., ii, 555.

X.

Kienzopolska, (Mlle.) M. See *Siegmund Reich*.

Y.

- Yanovsky, E.** See *Claude S. Hudson*.
Yeppo, Arvo. See *Peter Rona*.
Yngve, Victor. See *Ira Harris Derby*.
Young, Sydney, the boiling points and critical temperatures of homologous compounds, A., ii, 550.
Young, Stewart Woodford, and *Elton Marion Hogg*, passivification of iron by nitric acid, A., ii, 22.
Young, Stewart Woodford, and *Allen Edwin Stearn*, basic copper sulphates, A., ii, 621.
Young, William John, the fixation of salvarsan and neo-salvarsan by the blood after intravenous injection, A., i, 230.

Z.

- Zachariades, N.**, and *J. Czak*, estimation of the citric acid soluble phosphates by the ferric citrate method, A., ii, 48.
Zahn, Kurt. See *Carl Paal*.
Zajcev, M., 3-allylmenthanol, 3-allyl- Δ^3 -menthene and 1-methyl-3-allyl- Δ^3 -cyclohexene, A., i, 267.
Zalkind, J. S., combination of hydrogen with acetylene derivatives. VI. Hydrogenation of an acetylenic alcohol, A., i, 260.
Zambonini, Ferruccio, solid solutions of compounds of calcium, strontium, barium, and lead with those of the rare earths, and their importance in chemical mineralogy, A., ii, 249.
the relation between the angles of mixed crystals and those of their components, A., ii, 380.
composition of apatites, A., ii, 443.
Zande, J. E. van der. See *Willem Cornelis de Graaff*.
Zanetti, Joaquin Enrique, thermal decomposition of the propane-butane fraction from natural gas condensate, A., i, 625.
Zanetti, Joaquin Enrique, and *E. H. Leslie*, the thermal decomposition of the ethane-propane fraction from natural gas condensate, A., i, 705.
Zappi, Enrique V., methylarsine dichloride, A., i, 469.
hydrogenation of pyridine, A., i, 502.
a new heterogeneous ring, containing arsenic in the nucleus; methylarsepinedine (methylcyclopentamethylenearsine), A., i, 575, 683.

- Zappi, Enrique V.**, the organomagnesium derivative of α -dichloropentane, A., i, 626.
Zazzaroni, A. See *Maurizio Padoa*.
Zedner, Julian. See *Otto Ruff*.
Zehnder, L., an atomic model, A., ii, 479.
atomic structure, A., ii, 610.
Zellner, Julius. See *F. Wosolsobe*.
Zenghelis, Constantin, the synthesis of ammonia, A., ii, 429.
the composition and use of Greek fire, A., ii, 528.
Zenghelis, Constantin, and *Stavros Horsch*, chemical action of sodium peroxide on hydrogen peroxide, A., ii, 612.
chemical action of sodium peroxide on the oxides of carbon, A., ii, 616.
Zenovici-Eremie, (Mme.) Th. See *Stefan Minovici*.
Zieger, Rudolf. See *Robert Behrend*.
Zimovski, N., oxidation of Δ^{α} -hypogaeic acid by alkaline permanganate solution and by Caro's reagent, A., i, 248.
Zincke, Theodor, and *C. Jülicher*, naphthasultam. I. isoNaphthasultam and chloro-derivatives of naphthasultam and of dihydro- and tetrahydro-naphthasultams, A., i, 426.
Zlataroff, As., phytobiochemical studies. I., A., i, 620.
new type of glycosuria; glucosomethylpentosuria, A., i, 776.
composition of the fruit of *Cicer arietinum*, L., A., i, 783.
the estimation of phosphoric acid in plant material, A., ii, 576.
Zoeren, G. J. van, convenient dip electrode, A., i, 212.
Zondek, Hermann. See *Carl Maase*.
Zonew, J. See *Franz Mawrow*.
Zschiegner, Herbert, accurate end-point in the volumetric estimation of sulphur in steel, A., ii, 340.
Zsigmondy, Richard, reactions of colloidal gold, A., ii, 421.
Zublena, S. See *Federico Giolitti*.
Zunz, Edgard, and (*Mlle.*) *Diakonoff*, anaphylaxis by diglycylglycine, A., i, 528.
Zweigbergk, N. von, the qualitative separation of silver from univalent mercury, A., ii, 344.
Zwikker, J. J. L., the non-existence of metatartaric acid, A., i, 306.
Zwislocki, T. See *Stanislaus Opolski*.